

SOLICITATION, OFFER AND AWARD				1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING	PAGE 1 OF 60						
2. CONTRACT NO.		3. SOLICITATION NO. W911W6-04-R-0005		4. TYPE OF SOLICITATION [] SEALED BID (IFB) [X] NEGOTIATED (RFP)		5. DATE ISSUED 15 Jul 2004		6. REQUISITION/PURCHASE NO.					
7. ISSUED BY AVIATION APPLIED TECHNOLOGY DIRECTORATE LEE BLVD, BLDG 401 ATTN: (SEE ATTACHED SCHEDULE) FORT EUSTIS VA 23604-5577				CODE W911W6		8. ADDRESS OFFER TO (If other than Item 7) See Item 7							
TEL: FAX:						CODE TEL: FAX:							
NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".													
SOLICITATION													
9. Sealed offers in original and _____ copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in _____ until <u>04:00 PM</u> local time <u>23 Aug 2004</u> (Hour) (Date)													
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.													
10. FOR INFORMATION CALL:		A. NAME PAULETTE L. WILSON		B. TELEPHONE (Include area code) (NO COLLECT CALLS) 757-878-2788		C. E-MAIL ADDRESS pwilson@aatd.eustis.army.mil							
11. TABLE OF CONTENTS													
(X)	SEC.	DESCRIPTION		PAGE(S)	(X)	SEC.	DESCRIPTION		PAGE(S)				
PART I - THE SCHEDULE					PART II - CONTRACT CLAUSES								
X	A	SOLICITATION/ CONTRACT FORM		1	X	I	CONTRACT CLAUSES		20 - 23				
X	B	SUPPLIES OR SERVICES AND PRICES/ COSTS		2 - 6	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS								
X	C	DESCRIPTION/ SPECS./ WORK STATEMENT		7 - 13	X	J	LIST OF ATTACHMENTS		24				
	D	PACKAGING AND MARKING			PART IV - REPRESENTATIONS AND INSTRUCTIONS								
X	E	INSPECTION AND ACCEPTANCE		14	X	K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS		25 - 45				
X	F	DELIVERIES OR PERFORMANCE		15 - 16									
X	G	CONTRACT ADMINISTRATION DATA		17	X	L	INSTRS., CONDS., AND NOTICES TO OFFERORS		46 - 56				
X	H	SPECIAL CONTRACT REQUIREMENTS		18 - 19	X	M	EVALUATION FACTORS FOR AWARD		57 - 59				
OFFER (Must be fully completed by offeror)													
NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.													
12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.													
13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)													
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):				AMENDMENT NO.		DATE		AMENDMENT NO.		DATE			
15A. NAME AND ADDRESS OF OFFEROR		CODE		FACILITY		16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)							
15B. TELEPHONE NO (Include area code)				15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. <input type="checkbox"/>				17. SIGNATURE		18. OFFER DATE			
AWARD (To be completed by Government)													
19. ACCEPTED AS TO ITEMS NUMBERED				20. AMOUNT				21. ACCOUNTING AND APPROPRIATION					
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 41 U.S.C. 253(c)()								23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)		ITEM			
24. ADMINISTERED BY (If other than Item 7)				CODE				25. PAYMENT WILL BE MADE BY				CODE	
26. NAME OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:								27. UNITED STATES OF AMERICA (Signature of Contracting Officer)		28. AWARD DATE			

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0001

1

Lot

Lightweight Armament Support Structure (LASS)

FFP

The Contractor as an independent agent and not as an agent of the Government shall furnish the personnel, facilities, and equipment to design and develop the Lightweight Armament Support Structure (LASS) to meet the specifications defined on pages 7 through 12 of this contract and the requirements set forth in the Airworthiness Requirements Document (ARD). Additionally, the Contractor shall prepare and deliver all data as required by DD Form 1423, Contract Data Requirements List, Exhibit A to this contract.

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
---------	-------------------	----------	------	------------	--------

0002

22

Each

OPTION

Option to purchase 22 Shipsets

FFP

The Contractor shall produce and deliver 22 Shipsets of the Lightweight Armament Support Structure (LASS) in accordance with the Government approved final product drawings, processes, and associated lists generated in Task 7 of the Statement of Work (SOW).

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003			Each		
OPTION	Option - maximum of 10 Shipsets FFP				
	NOTE: 10 is the maximum number available under this option. The Government may acquire as few as one.				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AA		10	Each		
OPTION	Option to purchase 10 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AB		9	Each		
OPTION	Option to purchase 9 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AC		8	Each		
OPTION	Option to purchase 8 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AD		7	Each		
OPTION	Option to purchase 7 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AE		6	Each		
OPTION	Option to purchase 6 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AF		5	Each		
OPTION	Option to purchase 5 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AG		4	Each		
OPTION	Option to purchase 4 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AH		3	Each		
OPTION	Option to purchase 3 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AJ		2	Each		
OPTION	Option to purchase 2 Shipsets FFP				

NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AK		1	Each		
OPTION	Option to purchase 1 Shipset FFP				

NET AMT

FOB: Destination

Section C - Descriptions and Specifications

Specification

C-1 Scope. The U.S. Army seeks to purchase a minimum of 22 and a maximum of 32 shipsets of the Lightweight Armament Support Structure (LASS) to replace the External Fuel System (EFS) “stub wings” used on the Integrated Defensive Armed Penetrator (IDAP) version of the MH-60L helicopter. Prior to this purchase, The U. S. Army seeks to purchase two structural test articles and one prototype shipset for use in static, dynamic and environmental qualification testing described in the Airworthiness Requirements Document (ARD) referenced in Section C-3.1.

C-2 Background. The UH-60 Blackhawk helicopter has provisions for attaching the External Stores Support System (ESSS) on the left and right sides of the helicopter. The ESSS was designed to support two additional fuel tanks per side without taking up precious cargo space inside the aircraft. There are two versions of the external fuel tanks, a 230-gallon tank and a 450-gallon tank, which may be flown concurrently (two 230’s on the outboard stations and two 450’s on the inboard stations, reference UH-60 operator’s manual, page 7-137). Assuming 6.7 pounds per gallon of JP-8 fuel, 150 pounds for the 230-gallon tank, and 234 pounds for the 450-gallon tank, the ESSS is approved for 3249 pounds on each inboard station and 1691 pounds on each outboard station at one time.

A decision was made in the 1980’s that there was a requirement for a single-stores-station “stub wing”, so Sikorsky created the External Fuel System (EFS) “stub wing” by modifying the existing ESSS, literally cutting off the outboard stores stations with no modification to the root structure (ease and cost savings). However, as the aircraft mission and performance requirements have changed, the need to reduce aircraft weight has become critical. The mission of the MH-60L IDAP requires the use of the single-station EFS, but there is no longer a requirement for the EFS to carry fuel, and the weight of the heaviest external store is expected to be 700 pounds, less than half the weight of a single full 230-gallon fuel tank. Based on changes in requirements, it is anticipated that the greatest weight savings for the MH-60L can be realized through a thorough redesign of the EFS.

The Deputy Systems Integration and Management Officer (SIMO) for the 160th Special Operations Aviation Regiment (Airborne)(SOAR(A)) has requested a redesign the EFS “stub wings” installed on the MH-60L IDAP helicopter with weight reduction as the primary objective. The weight savings provided by the LASS will allow the IDAP to carry more fuel, cargo, or personnel over the current EFS configuration.

C-3 Applicable Documents. The delivered product shall be able to successfully meet the applicable portions of the following documents:

C-3.1 Airworthiness Requirements Document (ARD), *Lightweight Armament Support Structure (LASS) for MH-60L/M Helicopters, Integrated Defensive Armed Penetrator (IDAP) and Armed Aerial Escort (AAE) Variants*, U.S. Army RDECOM, Aviation Engineering Directorate (AED), 31 Mar 04.

C-3.2 Pertinent excerpts from Technical Manual, TM 1-1520-237-23P, *Maintenance Manual for the UH-60A/L Helicopter*, with changes.

C-3.3 Technical Manual, TM 55-1500-345-23, *Painting and Marking Army Aircraft*, 12 June 1986 with changes.

C-3.4 Military Specification, MIL-C-46168, *Aliphatic Polyurethane, Chemical Agent Resistant Coating*, 21 May 1987 with changes.

C-3.5 Military Specification, MIL-PRF-23377, *Primer Coatings: High-Solids Epoxy*, 30 April 2002.

C-4 Requirements

C-4.1 General. The Contractor shall design, develop, analyze, document, and fabricate two structural test articles and one prototype shipset with an option for between twenty-two (22) and thirty-two (32) production shipsets of the Lightweight Armament Support Structure (LASS) to replace the External Fuel System (EFS) “stub wings” on the MH-60L Integrated Defensive Armed Penetrator (IDAP). A shipset is defined as two mirror-image units, left side and right side. Structural testing of two prototype units shall be performed by the Government to determine the structural integrity of the design. Based on successful results of the prototype structural testing, a full prototype shipset shall be fabricated for government flight testing to verify the airworthiness of the structure. Each unit shall be required to meet the design specifications outlined in Section C-4.2 below and meet the requirements set forth in the Airworthiness Requirements Document (ARD) referenced in Section C-3.1. The Government shall be responsible for conducting any testing needed to substantiate those requirements outlined in the ARD that cannot be substantiated through similarity or analysis.

C-4.2 Specifications.

C-4.2.1 Form, Fit, Function Requirements.

C-4.2.1.1 The primary function of the LASS shall be to support external stores using the ALKAN Model 1216 ejector rack used on the EFS to include provisions for the existing wiring harnesses, an electronic interface unit, and the position lights. The new design will be expected to maintain the current electrical and mechanical interfaces with the aircraft, ejector rack, and stores. A secondary function of the LASS shall be to provide suitable structure at the “wingtip” for future applications. Care and use of the LASS shall emulate the ESSS as addressed in the excerpts from the UH-60L Maintenance Manual, Section C-3.2.

C-4.2.1.2 The left and right LASS assemblies shall mount to any MH-60L IDAP helicopter in the fleet using the exact method and hardware currently used to attach the EFS “stub wings” to the MH-60L IDAP; two upper clevises attach the main “stub wing” structure to the aircraft with expandable quick-release pins and two semi-vertical struts support the “stub wing” and attach to two clevises on the lower portion of the aircraft with expandable quick release pins. See excerpts from the UH-60L Maintenance Manual, Section C-3.2.

C-4.2.1.3 Each LASS assembly shall be configured to support a single ALKAN Model 1216 stores ejector rack in the same location, using the same mounting method and hardware currently used on the EFS “stub wing”. The location of the mounting holes for the ejector rack shall be maintained in all three dimensions with respect to “stub wing” mounting lugs on the aircraft as outlined in Table 1. Figure 1 describes this relationship.

TABLE 1. ALKAN Mount Hole Location Tolerance

Direction	Tolerance
X	$\pm 0.5''$
Y	$\pm 0.5''$
Z	$\pm 1''$
Pitch	$\pm 1^\circ$
Roll	$\pm 2^\circ$
Yaw	$\pm 1^\circ$

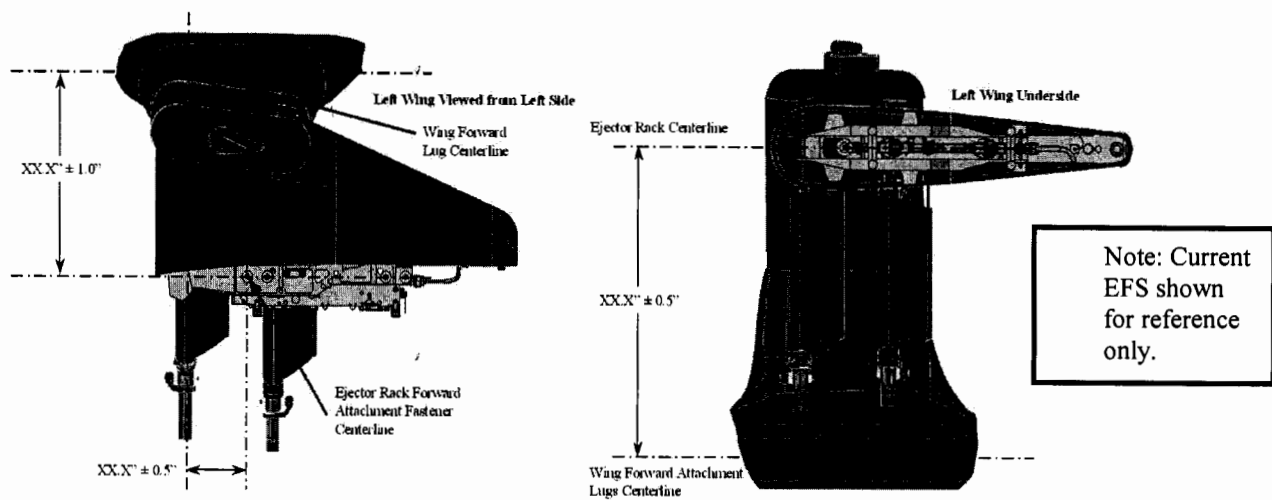


FIGURE 1. ALKAN Mount Hole Location Tolerance and Relationship

C-4.2.1.4 The LASS shall not be required to incorporate a method for adjusting the forward elevation of the ejector rack as exists in the EFS.

C-4.2.1.5 The LASS design shall include access panels and inspection panels as required for inspection of the structure and access to the wiring harnesses. Integrated lifting points or handles are also desired.

C-4.2.1.6 The “wingtip” shall include provisions for mounting future applications weighing up to 120 pounds, designed with a center of gravity located 15 inches outboard of the “wingtip”. Additionally, there shall be provisions for mounting the current position light on the outboard edge of the LASS.

C-4.2.1.7 The exposed surfaces of the LASS shall be corrosion resistant, durable, and damage tolerant. Paint in accordance with Section C-3.3 to Color Chip 37038 (Black) in accordance with Section C-3.4 and with Primer Type 1 where applicable in accordance with Section C-3.5 or suitable substitute. The Contractor shall apply UID markings as appropriate.

C-4.2.2 Weight Requirements. The maximum acceptable weight of each fully operational LASS assembly will be 140 pounds with a target weight less than or equal to 100 pounds. The weight of the current fully operational EFS is 226 pounds, which includes approximately 170 pounds of structure available for modification. A fully operational LASS assembly shall be defined as a flight-ready unit complete with all the integral components associated with the EFS “stub wings”. This includes, but is not limited to, the struts, the ALKAN 1216 ejector rack, all wiring harnesses, all fairings, quick-release pins, position lights, etc. A fully operational EFS assembly contains an estimated 56 pounds of non-structural hardware and is included in the assembly weights.

C-4.2.3 Structural Load Requirements.

C-4.2.3.1 The LASS must be able to support 4200 pounds-force, lbf, applied individually in the Forward, Down, and Lateral-Inboard directions. These loads represent a 700-lb item at 6g crash loads and will be applied at Waterline (WL) 217.5, Butt Line (BL) 80.03, and Fuselage Station (FS) 316 with respect to the aircraft. WL 217.5 is a position 14” beneath the four holes used to mount the ALKAN Model 1216 ejector rack. This position is illustrated in Figure 2. The structure must also be able to support 2100 lbf applied individually in the Up and Lateral-Outboard directions through the same load application point. These loads represent a 700-lb item at 3g crash loads. Crash load requirements are considered ultimate loads. Structural load testing using the above loads will be performed by the Government to verify the structural integrity of the prototypes. During these tests, the LASS will be mounted as it would be on the aircraft.

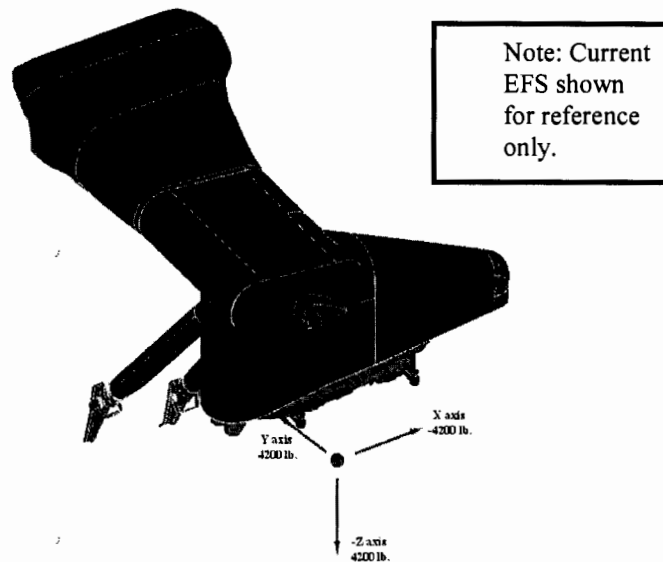


FIGURE 2. Crash Loading for Wing Design

C-4.2.3.2 A concurrent load application of an additional 120 pounds located 15" outboard of the "wingtip" shall be substantiated through analysis. This additional load shall be applied concurrently with the loads listed in Section C-4.2.3.1. The 120-pound load shall be subject to the crash loads outlined in the ARD, Section C-3.1.

C-4.2.3.3 The LASS structure must also be able to support an actual cyclic recoil loads of 3000 lbf in the aft direction returning to 0 lbf at a rate of 625 cycles per minute. This is a separate load case not to be used concurrently with the loads in Sections C-4.2.3.1 or C-4.2.3.2. These loads will be applied at Waterline (WL) 219.5, Butt Line (BL) 80.03, and Fuselage Station (FS) 322.3 with respect to the aircraft. WL 219.5 is a position 12" beneath the four holes used to mount the ALKAN Model 1216 ejector rack. This position is illustrated at Figure 3. The structure must be capable of sustaining 5×10^6 cycles.

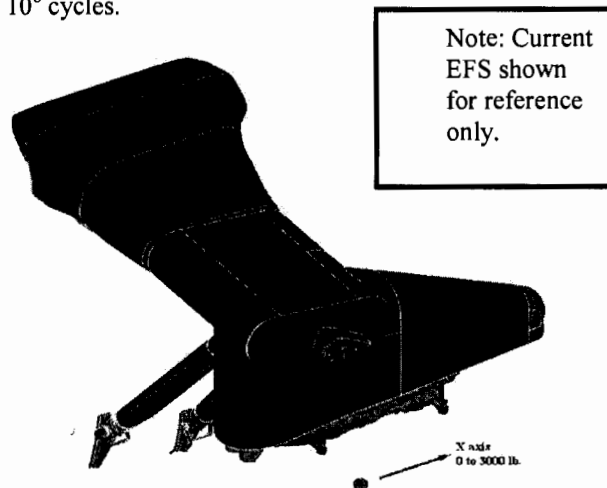


FIGURE 3. Cyclic Loading for Wing Design

C-4.2.3.4 The loads and positions listed in Sections C-4.2.3.1 through C-4.2.3.3 are approximate and represent worst-case conditions.

C-4.2.3.5 Torsional stiffness of the LASS structure shall be greater than or equal to that of the EFS “stub wing”. All anticipated failure modes should be soft failures resulting in gradual degradation without resulting in catastrophic failure of the structure.

C-4.2.4 Aerodynamic Requirements. The current shape of the EFS fairing structure is aerodynamically neutral and angled approximately 6.5 degrees nose-up (fig 4). The aerodynamic shape of the LASS should emulate these aerodynamic characteristics with no additional positive or negative lift. Reduction in drag is highly encouraged. Current ΔF is 0.8 ft².

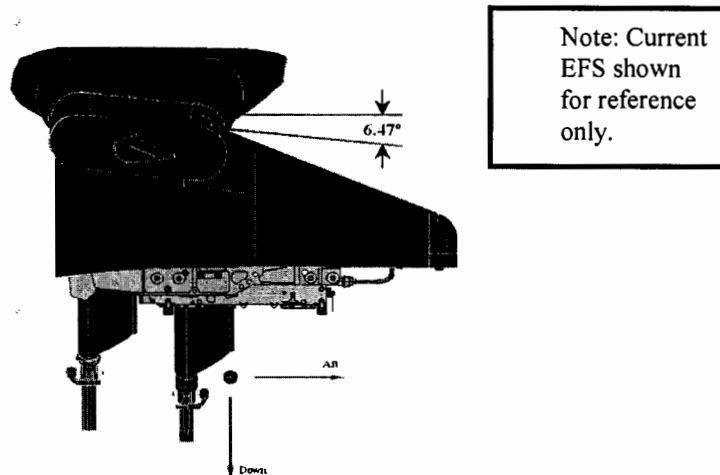


FIGURE 4. EFS Wing Pitch Angle

C-4.2.5 Maintainability Requirements. The LASS shall not require additional inspection requirements or logistics requirements beyond those required for the EFS as defined in the excerpts from the Maintenance Manual, Section C-3.2. Field handling, use and maintenance should be considered in all aspects of the design. Minor repairs shall not require additional skills or tools beyond those already available to typical Aviation Intermediate Maintenance (AVIM) personnel.

C-4.3 Detail Tasks.

C-4.3.1 Task 1 - Kick-off Meeting. The Contractor shall attend a Government-hosted Kick-off Meeting at a mutually agreeable time at the Bluegrass Army Depot, Richmond, KY. An MH-60L with baseline EFS installed will be available for inspection. The Contractor shall be prepared to present the LASS concept to Government personnel.

C-4.3.2 Task 2 – Stiffness and Rigidity Baseline Testing. The Contractor shall conduct testing of the Government-furnished EFS, in accordance with the Contracting Officer-approved Test Plan (A001), to determine, at a minimum, the torsional and bending stiffness of the assembly, and deflections under design loads as specified in C-4.2.3. Baseline testing shall be witnessed by the Government and documented in the Test Report (A002).

C-4.3.3 Task 3 – Design and Engineering. The Contractor shall design, develop, and substantiate through analysis (CDRL A005, A006, and A007) a Lightweight Armament Support Structure to meet the Specifications in Section C-4.2 and the requirements set forth in the ARD, Section C-3.1, using engineering trade-offs between weight, strength and stiffness, material properties and reactivity, durability, maintainability, and manufacturing cost. Testing will be as required to substantiate materials and processes. The LASS design shall be defined via Data Items A003 thru A008, collectively. The design definition shall include physical characteristics including shape, size, materials, assembly and subassembly detail, interface methods between assemblies and external systems, and fabrication processes (CDRL A003 and A004). The Contractor shall conduct a Failure Modes, Effects and Criticality Analysis

(FMECA) (CDRL A008). Informal design reviews may be held at times agreed to by the Government and the Contractor.

C-4.3.4 Task 4 - Critical Design Review (CDR). The Contractor shall conduct a Critical Design Review at the Contractor's facility. At the CDR, the Contractor shall present: the formalized design substantiating compliance with the Specification and ARD; all engineering and structural analyses; formalized manufacturing and assembly processes; and the results of any process or materials testing.

C-4.3.5 Task 5 - Structural Test Articles. Upon Contracting Officer's approval of the CDR, the Contractor shall fabricate and deliver two right-side or left-side LASS assemblies for use by the Government as structural test specimens to verify and quantify structural integrity. These assemblies shall be fabricated in accordance with the design characteristics agreed to in the CDR and documented in CDRL A003 and A004. They should be structurally complete but are not required to be fully operational assemblies.

C-4.3.6 Task 6 - Flight Test Article. Upon notification by the Contracting Officer of Structural Test Article Acceptance (notionally 21-days after delivery to the Government), a fully operational shipset shall be fabricated and delivered to the Government for flight testing. The flight test article shall incorporate any changes resulting from deficiencies found in the Government Structural Test Article Acceptance Testing. (For bidding purposes, assume no changes are required; any changes required after flight test will be addressed through the Changes Clause and subject to equitable adjustment.)

C-4.3.7 Task 7 - OPTION: Production Fabrication. Following notification of successful flight testing and acceptance of the LASS by the Contracting Officer, the Contractor shall finalize the drawings, processes, and associated lists in accordance with CDRL A002 and A007 required to produce fully-operational shipsets of LASS. The Contractor shall produce and deliver 22-32 shipsets of the LASS in accordance with the government-approved final product drawings, processes, and associated lists.

CLAUSES INCORPORATED BY FULL TEXT

C-A1 52.204-4109 (AATD) EXPORT CONTROLS (DEC 1992)

Information generated in performance of this solicitation and/or contract is subject to export control by the Arms Export Control Act (Title 22, U.S.C., Sec 2751 et seq.) or Executive Order 12470. Violation of these export laws is subject to severe criminal penalties.

(END OF CLAUSE)

C-A7 USAAMCOM 52.223-4001 - STATEMENT OF WORK--DATA/SOFTWARE AND OZONE-DEPLETING SUBSTANCES (JUL 1993)

Notwithstanding whether the use of ODSs has been approved for this current contract, ODS/ODC specifications or requirements shall not be incorporated into data or software delivered hereunder, including the initial preparation of or any changes, updates or modifications made to the Technical Data Package (TDP), Depot Maintenance Work Requirement (DMWR), drawings or manuals unless specifically authorized herein or approved in writing by the contracting officer in advance of delivery.

(END OF CLAUSE)

C-A9 52.246-4003 TERMINOLOGY/CALIBRATION (USAAMCOM)

(a) TERMINOLOGY.

Terminology shall be as defined by International Organization for Standardization (ISO) 8402, Quality Management and Quality Assurance - Vocabulary.

(b) CALIBRATION. (Applicable if a military or a commercial quality system is selected for use.)

The calibration of Test, Measurement and Diagnostic Equipment shall be in accordance with American National Standards Institute/National Conference of Standards Laboratories (ANSI/NCSL) Z540-1-1994 (General Requirements for Calibration Laboratories and Measuring and Test Equipment) or ISO 10012-1:1992 (Quality Assurance Requirements for Measuring Equipment).

(END OF CLAUSE)

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	Destination	Government	Destination	Government
0002	Destination	Government	Destination	Government
0003	Destination	Government	Destination	Government
0003AA	Destination	Government	Destination	Government
0003AB	Destination	Government	Destination	Government
0003AC	Destination	Government	Destination	Government
0003AD	Destination	Government	Destination	Government
0003AE	Destination	Government	Destination	Government
0003AF	Destination	Government	Destination	Government
0003AG	Destination	Government	Destination	Government
0003AH	Destination	Government	Destination	Government
0003AJ	Destination	Government	Destination	Government
0003AK	Destination	Government	Destination	Government

CLAUSES INCORPORATED BY REFERENCE

52.246-7	Inspection Of Research And Development Fixed Price	AUG 1996
52.246-16	Responsibility For Supplies	APR 1984
252.246-7000	Material Inspection And Receiving Report	MAR 2003

AATD INSPECTION CLAUSE

E-1 52.246-4116 (AATD) INSPECTION (DEC 1992). The following is in addition to the inspection clauses incorporated by FAR references above.

a. All data specified to be delivered under the attached DD Form (s) 1423, Contract Data Requirements List, Exhibit A, shall be inspected and accepted by the Contracting Officer or his delegated representative at destination.

b. Deliverable hardware under Task 4.3.7 of the Specification shall be accepted by the Contracting Officer or his delegated representative at the Bluegrass Army Depot.

Section F - Deliveries or Performance

PROPOSED DELIVERY SCHEDULE

NOTE: The Offeror shall propose a delivery schedule for the deliverable Shipsets in CLIN 0002 and 0003 (including 0003AA through 0003AK). See Section L, paragraph L-30, regarding Offeror proposed delivery schedule.

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
0001	10 mths. ADC	1	AVIATION APPLIED TECHNOLOGY DIRECTORATE PAULETTE L. WILSON LEE BLVD, BLDG 401 ATTN: (SEE ATTACHED SCHEDULE) FORT EUSTIS VA 23604-5577 757-878-2788 FOB: Destination	W911W6
0002	28 mths. ADC	22	BLUEGRASS ARMY DEPOT ROGER WHITE SOFSA 2051 KINGSTON HIGHWAY BLDG 254 RICHMOND KY 40475 859-625-6164 FOB: Destination	H92228
0003	34 mths. ADC		(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AA	34 mths. ADC	10	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AB	34 mths. ADC	9	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AC	33 mths. ADC	8	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AD	33 mths. ADC	7	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AE	32 mths. ADC	6	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228

0003AF 32 mths. ADC	5	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AG 31 mths. ADC	4	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AH 31 mths. ADC	3	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AJ 30 mths. ADC	2	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228
0003AK 30 mths. ADC	1	(SAME AS PREVIOUS LOCATION) FOB: Destination	H92228

CLAUSES INCORPORATED BY REFERENCE

52.242-15	Stop-Work Order	AUG 1989
52.242-17	Government Delay Of Work	APR 1984
52.247-34	F.O.B. Destination	NOV 1991
52.247-55	F.O.B. Point For Delivery Of Government-Furnished Property	JUN 2003

CLAUSES INCORPORATED BY FULL TEXT

F-1 ACCELERATED DELIVERY

The Government normally desires maximum acceleration of deliveries provided such acceleration is at no additional cost to the Government. However, prior to acceleration of delivery, approval must be obtained from the Procuring Contracting Officer. Acceleration in the delivery of end items will not be acceptable to the Government unless all other scheduled deliveries relating to contract items such as provisioning, technical documentation, drawings, publications, overpack kits, etc., are accelerated by an equal period of time.

(END OF CLAUSE)

F-2 USAAMCOM 52.211-4010 - DELIVERY SCHEDULE (AUG 2001)

The delivery schedule for all data and reports is as specified on the DD Form 1423, Exhibit A.

(End of clause)

Section G - Contract Administration Data

CLAUSES INCORPORATED BY FULL TEXT

G1. REMITTANCE ADDRESS

Address to which payments should be mailed if such address is different from address shown in Block 15A of SF 33 or Block 7 of SF 26:

(Company Name)

(Street/Post Office Box)

(City/State/Zip Code)

G-6 52.232-4119 (AATD) SUBMITTAL OF INVOICES (DEC 1992)

a. Invoices shall be submitted in accordance with instructions furnished by the Cognizant Administrative Contracting Officer (ACO), specified on page 1 of Standard Form 26, Block 6 of this contract.

b. One copy of each invoice shall be submitted to the Aviation Applied Technology Directorate, Attn: AMSRD-AMR-AA-C, Attn: Paulette L. Wilson, Bldg. 401 Lee Blvd., Fort Eustis, VA 23604-5577.

(END OF CLAUSE)

G-7 52.242-4139 (AATD) ASSIGNMENT OF CONTRACT ADMINISTRATION SERVICES (CAS) FUNCTIONS (MAR 1993)

a. The contract administration functions stated in FAR 42.302(a) are assigned to: TBD.

b. Notwithstanding that assignment, in accordance with FAR 42.202(b)(2), the following functions are determined to be best performed by the PCO and are retained by the AATD Contracting Office:

(1) FAR 42.302(a)(3) Conduct postaward orientation conferences.

(2) FAR 42.302(a)(40) Perform engineering surveillance to assess compliance with contractual terms for schedule, cost, and technical performance in the areas of design, development, and production.

(3) FAR 42.302(a)(44) Perform engineering analyses of contractor cost proposals.

(4) FAR 42.302(a)(51) In accordance with FAR 52.244-2, consent to the placement of subcontracts which have experimental, developmental, or research work as one of its purposes.

(5) Approval or disapproval of the data items listed on Exhibit A, DD Form 1423, Contract Data Requirements List.

(END OF CLAUSE)

Section H - Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

H-14 52.210-4004 (USAATCOM) ALTERNATIVES TO MILITARY SPECIFICATIONS AND STANDARDS
(JAN 1995) - ALTERNATE I (JAN 1995)

The offeror or contractor is encouraged to propose alternative non-Government standards and industry-wide or Federal Aviation Administration approved practices for the proposed contract efforts, that meet the level of safety and performance of the listed military specification and standard requirements, for Government consideration. The alternative offer shall substantiate having the equivalent level of safety and performance as the listed requirements, and that requalification is not required or that with the cost of requalification there is a net life cycle cost savings. All proposal offers to provide such acceptable alternatives shall contain a commitment incorporated in the model contract to perform the alternative requirement. During performance of a contract, with Government written concurrence, any additional such changes become effective upon executing a binding commitment to perform the alternate requirement.

(END OF CLAUSE)

H-15 52.210-4144 (AATD) GOVERNMENT FURNISHED DATA (MAR 1993)

For performance of work under this contract, the Government will furnish the following data in the quantities and by the required date stated below to the successful offeror:

<u>Description</u>	<u>Delivery Date</u>
1. Sikorsky Drawing 70200-42404, Rev B, EFS Installation.	ACA
2. Sikorsky Drawing 70219-42412, Rev K, Fitting Assy, External Stores.	ACA
3. Sikorsky Drawing 70219-42405, Rev G, Fitting Assy, Beam to Fuselage STA 295 to STA 308.	ACA
4. Sikorsky Drawing 70553-42400, Rev B, Light Installation, Side Position.	ACA
5. Sikorsky Drawing 70219-42415, Rev G, Fitting Assy, Lower, Clevis-Support Strut End.	ACA

(END OF CLAUSE)

H-18 52.245-4125 (AATD) GOVERNMENT FURNISHED PROPERTY (DEC 1992)

For performance of work under this contract, the Government will furnish the following property in the quantities and by the required delivery dates stated below:

<u>P/N</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>VALUE</u>	<u>DELIVERY DATE</u>
1.	Existing External Fuel System (EFS) for reference.	1	\$100,000	ACA
2.	ALKAN Model 1216 Ejector Rack (1) for reference and fit checks.	1	\$ 17,000	ACA

(END OF CLAUSE)

H-19 52.245-4141 (AATD) ACCESS TO GOVERNMENT INSTALLATION/EQUIPMENT (MAR 1993)

As required by Task C-4.3.1 of the Specification, the Contractor will have access to the Bluegrass Army Depot located in Richmond, KY. An MH-60L with baseline EFS installed will be available for inspection. The Contractor shall be prepared to present the LASS concept to Government personnel.

(END OF CLAUSE)

Section I - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	DEC 2001
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	JUL 1995
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 2003
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.211-5	Material Requirements	AUG 2000
52.211-15	Defense Priority And Allocation Requirements	SEP 1990
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-8	Order of Precedence--Uniform Contract Format	OCT 1997
52.215-14	Integrity of Unit Prices	OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	JAN 2004
52.215-17	Waiver of Facilities Capital Cost of Money	OCT 1997
52.215-19	Notification of Ownership Changes	OCT 1997
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	JAN 1999
52.219-6	Notice Of Total Small Business Set-Aside	JUN 2003
52.219-8	Utilization of Small Business Concerns	OCT 2000
52.219-14	Limitations On Subcontracting	DEC 1996
52.222-3	Convict Labor	JUN 2003
52.222-20	Walsh-Healey Public Contracts Act	DEC 1996
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	DEC 2001
52.223-6	Drug-Free Workplace	MAY 2001
52.223-11	Ozone-Depleting Substances	MAY 2001
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.227-1 Alt I	Authorization And Consent (Jul 1995) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	AUG 1996
52.227-11	Patent Rights--Retention By The Contractor (Short Form)	JUN 1997
52.229-3	Federal, State And Local Taxes	APR 2003
52.232-2	Payments Under Fixed-Price Research And Development Contracts	APR 1984
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-17	Interest	JUN 1996

52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-25	Prompt Payment	OCT 2003
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.242-13	Bankruptcy	JUL 1995
52.243-1 Alt V	Changes--Fixed-Price (Aug 1987) - Alternate V	APR 1984
52.245-2	Government Property (Fixed Price Contracts)	MAY 2004
52.246-23	Limitation Of Liability	FEB 1997
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	SEP 1996
52.249-9	Default (Fixed-Priced Research And Development)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	MAR 1999
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004 Alt A	Required Central Contractor Registration Alternate A	NOV 2003
252.209-7000	Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate Range Nuclear Forces (INF) Treaty	NOV 1995
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	MAR 1998
252.225-7001	Buy American Act And Balance Of Payments Program	APR 2003
252.225-7002	Qualifying Country Sources As Subcontractors	APR 2003
252.225-7012	Preference For Certain Domestic Commodities	FEB 2003
252.225-7016	Restriction On Acquisition Of Ball and Roller Bearings	APR 2003
252.227-7013	Rights in Technical Data--Noncommercial Items	NOV 1995
252.227-7027	Deferred Ordering Of Technical Data Or Computer Software	APR 1988
252.227-7030	Technical Data--Withholding Of Payment	MAR 2000
252.227-7034	Patents--Subcontracts	APR 1984
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 1999
252.227-7039	Patents--Reporting Of Subject Inventions	APR 1990
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests	JAN 2004
252.235-7010	Acknowledgment of Support and Disclaimer	MAY 1995
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	MAR 2000
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option within TBD. The CLIN 0002 Option must be exercised by _____. The CLIN 0003 (including 0003AA through 0003AK) Option will be exercised by _____. Delivery of added items shall conform to the delivery term in Section F.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far/>
<http://www.acq.osd.mil/dpap/>
<http://farsite.hill.af.mil/>

(End of clause)

52.252-4 ALTERATIONS IN CONTRACT (APR 1984)

Portions of this contract are altered as follows:

52.232-25, Prompt Payment (OCT 2003), is altered to indicate "30" day" in lieu of "7th day" in paragraphs (a)(5)(I).

252.235-7010, Acknowledgement of Support and Disclaimer, is altered to indicate "U.S. Army Aviation and Missile Command, Aviation and Missile Research, Development and Engineering Center" in paragraphs (a) and (b) and "W911W6-04-R-0005" in paragraph (a).

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any NA (48 CFR NA) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

252.204-7000 DISCLOSURE OF INFORMATION (DEC 1991)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless--

(1) The Contracting Officer has given prior written approval; or

(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

Section J - List of Documents, Exhibits and Other Attachments

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Exhibit A	A001-Engineer Design Test Plan	1	15-JUL-2004
Exhibit A	A002-Airframe Rigidity Test Report	1	15-JUL-2004
Exhibit A	A003-Product Drawings and Associated Lists	1	15-JUL-2004
Exhibit A	A004-Special Tooling Drawings and Associated Lists	1	15-JUL-2004
Exhibit A	A005-Mathematical Model Finite Element Structure Report	1	15-JUL-2004
Exhibit A	A006-Mathematical Model Finite Element Analysis Report	1	15-JUL-2004
Exhibit A	A007-Internal Loads and Static Strength Analysis Report	1	15-JUL-2004
Exhibit A	A008-Special Tooling Drawings and Associated Lists	1	15-JUL-2004
Attachment 1	Airworthiness Requirements Document (ARD)	21	31-MAR-2004
Attachment 2	Past Performance Questionnaire	6	15-JUL-2004

Section K - Representations, Certifications and Other Statements of Offerors

SECTION K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS
OF OFFERORS (R&D Contracts)

NAME OF OFFEROR (Firm or Organization)_____

OFFEROR DUNS NUMBER_____

SOLICITATION/CONTRACT NUMBER_____

**K-1. FAR 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION
(APR 1985)**

(a) The Offeror certifies that--

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other Offeror or competitor relating to--

(i) Those prices;

(ii) The intention to submit an offer; or

(iii) The methods or factors used to calculate the prices offered.

(2) The prices in this offer have not been and will not be knowingly disclosed by the Offeror, directly or indirectly, to any other Offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the Offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory--

(1) Is the person in the Offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision _____ *[insert full name of person(s) in the Offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the Offeror's organization];*

(ii) As an authorized agent, does certify that the principals named in subparagraph (b)(2)(i) of this provision have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the Offeror deletes or modifies subparagraph (a)(2) of this provision, the Offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

K-2. FAR 52.203-11

**CERTIFICATION AND DISCLOSURE REGARDING
PAYMENTS TO INFLUENCE CERTAIN FEDERAL
TRANSACTIONS (APR 1991) (DEVIATION)**

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The Offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the Offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of provision)

[DOD only, class deviation 90-O0001, effective 8 May 90, until the FAR is revised]

THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, DC 20301-4000

May 08, 1990

PRODUCTION AND LOGISTICS

P/DARS

In reply refer to
DAR Case: 90-9/89-300
D.L. 90-07

MEMORANDUM FOR DIRECTORS OF DEFENSE AGENCIES DIRECTOR, CONTRACTING, OASA (RD&A)
/ SFRD-KP DIRECTOR, CONTRACTS AND BUSINESS MANAGEMENT, OASN (RD&A)

DIRECTOR, CONTRACTING AND MANUFACTURING POLICY, SAF / ACQ

EXECUTIVE DIRECTOR, CONTRACTING, DLA-P EXECUTIVE DIRECTOR, CONTRACTING
MANAGEMENT, DIA-A

SUBJECT: Limitation on Payment of Funds to Influence Federal Transactions, FAR Subpart 3.8

The Office of Management and Budget issued a memorandum on March 3, 1990, clarifying its interim final rule issued on December 20, 1989, on "Government wide Guidance for New Restrictions on Lobbying."

To implement these clarifications, I have approved a class deviation to our interim Federal Acquisition Regulation (FAR) rule that was published in the Federal Register on January 30, 1990, and in Federal Acquisition Circular 84-55. The certification required by Offerors at 52.203-11 now applies only to the procurement for which the certification is being obtained, not to "any" contract. Further, certifications are required only for awards in excess of \$100,000 made on or after December 23, 1989. Certifications are not required for contracts awarded prior to December 23, even if the contract is modified after that date.

These clarifications will be incorporated into the final FAR rule.

Elenor R. Spector
Deputy Assistant Secretary of
Defense (Procurement)

K-3. FAR 52.204-3

TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

Common parent, as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the Offeror is a member.

Taxpayer Identification Number (TIN), as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the Offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All Offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the Offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the Offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the Offeror's TIN.

(d) *Taxpayer Identification Number (TIN).*

- ☐ TIN: _____
- ☐ TIN has been applied for.
- ☐ TIN is not required because:
- ☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;
- ☐ Offeror is an agency or instrumentality of a foreign government;
- ☐ Offeror is an agency or instrumentality of the Federal Government.

(e) *Type of organization.*

- ☐ Sole proprietorship.
- ☐ Partnership.
- ☐ Corporate entity (not tax-exempt).
- ☐ Corporate entity (tax-exempt).
- ☐ Government entity (Federal, state, or local).
- ☐ Foreign government.
- ☐ International organization per 26 CFR 1.6049-4.
- ☐ Other _____

(f) *Common parent.*

- ☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.
- ☐ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

K-4. 52.204-4128 (AATD)

**MILITARILY CRITICAL TECHNICAL DATA
AGREEMENTS (DEC 1992)**

In accordance with the Militarily Critical Technical Data Agreements, you must have a seven-digit certification number as a condition of receiving militarily critical technical data. Please provide your certification number in the space provided _____.

K-5. FAR 52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) *Definition. Women-owned business concern*, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) *Representation [complete only if the Offeror is a women-owned business concern and has not represented itself as a small business concern in subparagraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.]* The Offeror represents that it [] is a women-owned business concern.

(End of provision)

K-6. FAR 52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (OCT 2003)

(a) The Offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" or "DUNS+4" followed by the DUNS number or "DUNS+4" that identifies the Offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit number assigned by Dun and Bradstreet, Inc. The DUNS+4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the Offeror to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11) for the same parent concern.

(b) If the Offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An Offeror may obtain a DUNS number--

(i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at <http://www.dnb.com> or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(2) The Offeror should be prepared to provide the following information:

(i) Company legal business name.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company physical street address, city, state and Zip Code.

(iv) Company mailing address, city, state and Zip Code (if separate from physical).

(v) Company telephone number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company headquarters name and address (reporting relationship within your entity).

(End of provision)

**K-7. FAR 52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY
MATTERS (DEC 2001)**

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are [], are not [] presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have [], have not [] within a three-year period preceding this offer been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are [], are not [] presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) The Offeror has [], has not [] within a three-year period preceding this offer had one or more contracts terminated for default by any Federal agency.

(2) "*Principals*," for the purposes of this certification, means officers; directors; owners; partners; and persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of

an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

K-8. DFARS 252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) *Definitions.* As used in this provision--

(1) "*Government of a terrorist country*" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "*Terrorist country*" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "*Significant interest*" means--

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtedness of a firm.

(b) *Prohibition on award.* In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary, or in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) *Disclosure.* If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclose such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include--

(1) Identification of each government holding a significant interest, and

(2) A description of the significant interest held by each Government.

(End of provision)

K-9. FAR 52.215-6 PLACE OF PERFORMANCE (OCT 1997)

(a) The Offeror or respondent, in the performance of any contract resulting from this solicitation, ☐ intends, ☐ does not intend [*check applicable block*] to use one or more plants or facilities located at a different address from the address of the Offeror or respondent as indicated in this proposal or response to request for information.

(b) If the Offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

Place of Performance
(Street Address, City,
County, State, Zip Code)

Name and Address of Owner and Operator
of the Plant or Facility if Other Than
Offeror or Respondent

(End of provision)

K-10. FAR 52.215-7 ANNUAL REPRESENTATIONS AND CERTIFICATIONS – NEGOTIATION (OCT 1997)

The Offeror has [*check the appropriate block*]:

☐ (a) Submitted to the contracting office issuing this solicitation, annual representations and certifications dated _____ [*insert date of signature on submission*] that are incorporated herein by reference, and are current, accurate, and complete as of the date of this proposal, except as follows [*insert changes that affect only this proposal; if "none," so state*]:

☐ (b) Enclosed its annual representations and certifications.

NOTE: The Aviation Applied Technology Directorate does not maintain Annual Representations and Certifications.

(End of provision)

K-11. FAR 52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is _____ [*insert NAICS code*].

(2) The small business size standard is _____ [*insert size standard*].

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) *Representations.*

(1) The Offeror represents as part of its offer that it [] is, [] is not a small business concern.

(2) *[Complete only if the Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]* The Offeror represents, for general statistical purposes, that it [] is, [] is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) *[Complete only if the Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]* The Offeror represents as part of its offer that it [] is, [] is not a women-owned small business concern.

(4) *[Complete only if the Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]* The Offeror represents as part of its offer that it [] is, [] is not a veteran-owned small business concern.

(5) *[Complete only if the Offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.]* The Offeror represents as part of its offer that it [] is, [] is not a service-disabled veteran-owned small business concern.

(6) *[Complete only if Offeror represented itself as a small business concern in paragraph (b)(1) of this provision.]* The Offeror represents, as part of its offer, that--

(i) It [] is, [] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR Part 126; and

(ii) It [] is, [] is not a joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. *[The Offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.]* Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(c) *Definitions.* As used in this provision--

"Service-disabled veteran-owned small business concern"--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

"Veteran-owned small business concern" means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) *Notice.*

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

ALTERNATE I (APR 2002).

(7) [Complete if Offeror represented itself as disadvantaged in paragraph (b)(2) of this provision]. The Offeror shall check the category in which its ownership falls:

[] Black American.

[] Hispanic American.

[] Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

[] Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the

Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

☐ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

☐ Individual/concern, other than one of the preceding.

K-12. FAR 52.219-21 SMALL BUSINESS SIZE REPRESENTATION FOR TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (MAY 1999)

[Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.]

Offeror's number of employees for the past 12 months *[check this column if size standard stated in solicitation is expressed in terms of number of employees]* or Offeror's average annual gross revenue for the last 3 fiscal years *[check this column if size standard stated in solicitation is expressed in terms of annual receipts]*. *[Check one of the following.]*

NO. OF EMPLOYEES AVG.

- ☐ 50 or fewer
- ☐ 51 - 100
- ☐ 101 - 250
- ☐ 251 - 500
- ☐ 501 - 750
- ☐ 751 - 1,000
- ☐ Over 1,000

ANNUAL GROSS REVENUES

- ☐ \$1 million or less
- ☐ \$1,000,001 - \$2 million
- ☐ \$2,000,001 - \$3.5 million
- ☐ \$3,500,001 - \$5 million
- ☐ \$5,000,001 - \$10 million
- ☐ \$10,000,001 - \$17 million
- ☐ Over \$17 million

(End of provision)

**K-13. FAR 52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS
(FEB 1999)**

The Offeror represents that--

(a) It ☐ has, ☐ has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) It ☐ has, ☐ has not filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

K-14. FAR 52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The Offeror represents that--

(a) It ☐ has developed and has on file, ☐ has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2); or

(b) It ☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of provision)

**K-15. FAR 52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT
REPORTING REQUIREMENTS (DEC 2001)**

By submission of its offer, the Offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

**K-16. FAR 52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE
REPORTING (AUG 2003)**

(a) Executive Order 13148, of April 21, 2000, Greening the Government through Leadership in Environmental Management, requires submission of this certification as a prerequisite for contract award.

(b) By signing this offer, the Offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the Offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons:
(Check each block that is applicable.)

- * (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;
- * (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A).
- * (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA).
- * (iv) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:
 - (A) Major group code 10 (except 1011, 1081, and 1094.
 - (B) Major group code 12 (except 1241).
 - (C) Major group codes 20 through 39.
 - (D) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).
 - (E) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.), or 5169, or 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or
- * (v) The facility is not located in the United States or its outlying areas.

(End of provision)

K-17. DFARS 252.225-7000

**BUY AMERICAN ACT--BALANCE OF PAYMENTS
PROGRAM CERTIFICATE (APR 2003)**

(a) *Definitions.* "Domestic end product," "foreign end product," "qualifying country," and "qualifying country end product" have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.

(b) *Evaluation.* The Government--

(1) Will evaluate offers in accordance with the policies and procedures of Part 225 of the Defense Federal Acquisition Regulation Supplement; and

(2) Will evaluate offers of qualifying country end products without regard to the restrictions of the Buy American Act or the Balance of Payments Program.

(c) *Certifications and identification of country of origin.*

(1) For all line items subject to the Buy American Act and Balance of Payments Program clause of this solicitation, the Offeror certifies that--

(i) Each end product, except those listed in subparagraphs (c)(2) or (3) of this provision, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror certifies that the following end products are qualifying country end products:

<u>Line Item Number</u>	<u>Country of Origin</u>
_____	_____
_____	_____
_____	_____

(3) The following end products are other foreign end products:

<u>Line Item Number</u>	<u>Country of Origin (if known)</u>
_____	_____
_____	_____
_____	_____

(End of provision)

K-18. DFARS 252.225-7003

**REPORT OF INTENDED PERFORMANCE OUTSIDE
THE UNITED STATES (APR 2003)**

(a) The Offeror shall submit a Report of Contract Performance Outside the United States, with its offer, if--

(1) The offer exceeds \$10 million in value; and

(2) The Offeror is aware that the Offeror or a first-tier subcontractor intends to perform any part of the contract outside the United States and Canada that--

(i) Exceeds \$500,000 in value; and

(ii) Could be performed inside the United States or Canada.

(b) Information to be reported includes that for--

(1) Subcontracts;

(2) Purchases; and

(3) Intracompany transfers when transfers originate in a foreign location.

(c) The Offeror shall submit the report using--

(1) DD Form 2139, Report of Contract Performance Outside the United States; or

- (2) A computer-generated report that contains all information required by DD Form 2139.
- (d) The Offeror may obtain a copy of DD Form 2139 from the Contracting Officer.

(End of provision)

K-19 DFARS 252.225-7031

SECONDARY ARAB BOYCOTT OF ISRAEL (APR 2003)

(a) *Definitions.* As used in this provision--

- (1) "Foreign person" means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.
- (2) "United States person" is defined in 50 U.S.C. App. 2415(2) and means
 - (i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);
 - (ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and
 - (iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) *Certification.* If the Offeror is a foreign person, the Offeror certifies, by submission of an offer, that it--

- (1) Does not comply with the Secondary Arab Boycott of Israel; and
- (2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

K-20. FAR 52.227-6

ROYALTY INFORMATION (APR 1984)

(a) *Cost or charges for royalties.* When the response to this solicitation contains costs or charges for royalties totaling more than \$250, the following information shall be included in the response relating to each separate item of royalty or license fee:

- (1) Name and address of licensor.
- (2) Date of license agreement.
- (3) Patent numbers, patent application serial numbers or other basis on which the royalty is payable.
- (4) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable.
- (5) Percentage or dollar rate of royalty per unit.
- (6) Unit price of contract item.
- (7) Number of units.

(8) Total dollar amount of royalties.

(b) *Copies of current licenses.* In addition, if specifically requested by the Contracting Officer before execution of the contract, the Offeror shall furnish a copy of the current license agreement and an identification of applicable claims of specific patents.

(End of provision)

K-21. DFARS 252.227-7017

**IDENTIFICATION AND ASSERTION OF USE,
RELEASE, OR DISCLOSURE RESTRICTIONS
(JUN 1995)**

(a) The terms used in this provision are defined in the following clause or clauses contained in this solicitation:

(1) If a successful Offeror will be required to deliver technical data, the Rights in Technical Data--Noncommercial Items clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.

(2) If a successful Offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software - Small Business Innovative Research (SBIR) Program clause.

(b) The identification and assertion requirements in this provision apply only to technical data, including computer software documentation, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovative Research Program, the notification and identification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.

(c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, assert should be furnished to the Government with restrictions on use, release, or disclosure.

(d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers, shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror:

• Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

• The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted.

Technical Data or
Computer Software
to be Furnished
with Restrictions*
(LIST)*****

Basis for
Assertion**
(LIST)

Asserted Name of Person	
Rights	Asserting
Category***	Restrictions****
(LIST)	(LIST)

*For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such item, component, or process. For computer software or computer software documentation, identify the software or documentation.

**Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.

***Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).

****Corporation, individual, or other person, as appropriate.

*****Enter "none" when all data or software will be submitted without restrictions.

Date _____

Printed Name and Title _____

Signature _____

(End of identification and assertion)

(e) An Offeror's failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible for award.

(f) If the Offeror is awarded a contract, the assertions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed assertion.

(End of provision)

K-22. DFARS 252.227-7028

TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT (JUN 1995)

The Offeror shall attach to its offer an identification of all documents or other media incorporating technical data or computer software it intends to deliver under this contract with other than unlimited rights that are identical or substantially similar to documents or other media that the Offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract. The attachment shall identify--

(a) The contract number under which the data or software were produced;

(b) The contract number under which, and the name and address of the organization to whom, the data or software were most recently delivered or will be delivered; and

(c) Any limitations on the Government's rights to use or disclose the data or software, including, when applicable, identification of the earliest date the limitations expire.

(End of provision)

K-23. FAR 52.230-1

**COST ACCOUNTING STANDARDS NOTICES AND
CERTIFICATION (JUN 2000)**

Note: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the Offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. Disclosure Statement – Cost Accounting Practices and Certification

(a) Any contract in excess of \$500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any Offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the Offeror's proposal under this solicitation unless the Offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the Offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) *Check the appropriate box below:*

☐ (1) *Certificate of Concurrent Submission of Disclosure Statement.* The Offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows:

(i) Original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable; and

(ii) One copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official Where Filed:

The Offeror further certifies that practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

☐ (2) *Certificate of Previously Submitted Disclosure Statement.* The Offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official Where Filed:

The Offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

☐ (3) *Certificate of Monetary Exemption.* The Offeror hereby certifies that the Offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling \$50 million or more in the cost accounting period immediately preceding the period in which this proposal was submitted. The Offeror further certifies that, if such status changes before an award resulting from this proposal, the Offeror will advise the Contracting Officer immediately.

☐ (4) *Certificate of Interim Exemption.* The Offeror hereby certifies that—

(i) the Offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted; and

(ii) in accordance with 48 CFR 9903.202-1, the Offeror is not yet required to submit a Disclosure Statement. The Offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the Offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. Cost Accounting Standards – Eligibility for Modified Contract Coverage

☐ If the Offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the Offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

☐ The Offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the Offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the Offeror received less than \$50 million in awards of CAS-covered prime contracts

and subcontracts. The Offeror further certifies that if such status changes before an award resulting from this proposal, the Offeror will advise the Contracting Officer immediately.

CAUTION: An Offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$50 million or more or if, during its current cost accounting period, the Offeror has been awarded a single CAS-covered prime contract or subcontract of \$50 million or more.

III. Additional Cost Accounting Standards Applicable to Existing Contracts

The Offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

Yes ☐ No ☐

(End of provision)

ALTERNATE I (APR 1996).

☐ (5) *Certificate of Disclosure Statement Due Date by Educational Institution.*

If the Offeror is an educational institution that, under the transition provisions of 48 CFR 9903.202-1(f), is or will be required to submit a Disclosure Statement after receipt of this award, the Offeror hereby certifies that (*check one and complete*):

☐ (i) A Disclosure Statement Filing Due Date of _____ has been established with the cognizant Federal agency.

☐ (ii) The Disclosure Statement will be submitted within the 6-month period ending _____ months after receipt of this award.

Name and Address of Cognizant ACO or Federal Official Where Disclosure Statement is to be Filed:

_____	_____
_____	_____
_____	_____
_____	_____

K-24. DFARS 252.247-7022

REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term "*supplies*" is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it--

☐ Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation;

[] Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

K-25. AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any _____ [*insert regulation name*] (48 CFR Chapter _____) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

Section L - Instructions, Conditions and Notices to Bidders

CLAUSES INCORPORATED BY REFERENCE

52.204-6	Data Universal Numbering System (DUNS) Number	OCT 2003
52.215-1	Instructions to Offerors--Competitive Acquisition	JAN 2004
52.215-16	Facilities Capital Cost of Money	JUN 2003
52.215-20	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data	OCT 1997
52.223-13	Certification of Toxic Chemical Release Reporting	AUG 2003
252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions	JUN 1995

CLAUSES INCORPORATED BY FULL TEXT

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm-Fixed-Price contract resulting from this solicitation.

(End of clause)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from Contracting Division, U.S. Army Research, Development and Engineering Command, Aviation Applied Technology Directorate, ATTN: AMSRD-AMR-AA-C, Bldg. 401 Lee Boulevard, Fort Eustis, Virginia 23604-5577.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.arnet.gov.far>

<http://acq.osd.mil/dars/>

<http://farsite.hill.af.mil/>

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

- The use in this solicitation of any NA (48 CFR Chapter NA) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

L-13 Questions Concerning the Solicitation

If an Offeror has any questions concerning this solicitation, it is recommended that they be submitted in writing no later than (10) calendar days prior to the closing date of the solicitation. Questions received after that time may not receive a response.

L-16 USAAMCOM 52.204-4000 – SIGNATURE AUTHORITY (DEC 1992)

(a) The individual signing this offer must have authority to bind the offeror to a contract. FAR 4.102(a) through (e) require that the contracting officer have specific evidence of the signer's authority to bind the offeror. This evidence of authority is a condition that must be met before the contracting officer can execute any contract resulting from this solicitation.

(b) Offerors must provide evidence, appropriate to their business category, of the signer's authority to bind them on a contract. This evidence may be:

- (1) Furnished as an attachment to its offer; or
- (2) Identified in its offer by specific reference to an earlier offer submitted to this buying office within the past 12 months, where the signer's authority was confirmed by attachment to that offer; or;
- (3) Furnished upon receipt of a specific request for the information from the contracting officer. (Note that, per FAR 52.214-12(b) and 52.215-13(b), agents signing on behalf of another offeror must provide evidence of their authority per (b)(1) or (2) above.)

(End of provision)

L-18 USAAMCOM 52.209-4006 – FINANCIAL AND TECHNICAL ABILITY (OCT 1992)

(a) If an offer submitted in response to this solicitation is favorably considered, a Government preaward survey team may contact the offeror's facility to assess the offeror's ability to perform.

(b) Current financial statements and other pertinent data shall be made available for examination. The survey team may also evaluate the offeror's system for determining the financial and technical ability of any proposed subcontractors.

(End of provision)

L-2 AMC-Level Protest Program

If you have complaints about this procurement, it is preferable that you first attempt to resolve those concerns with the responsible contracting officer. However, you can also protest to Headquarters, AMC. The HQ, AMC-Level Protest Program is intended to encourage interested parties to seek resolution of their concerns within AMC as an Alternative Dispute Resolution forum, rather than filing a protest with the General Accounting Office (GAO), or other external forum. Contract award or performance is suspended during the protest to the same extent, and within the same time periods, as if filed at the GAO. The AMC protest decision goal is to resolve protests within 20 working days from filing. To be timely, protests must be filed within the periods specified in Federal Acquisition Regulation 33.103. Send protests (other than protests to the contracting officer) to:

HQ, Army Materiel Command
Office of Command Counsel
9301 Chapek Rd, Room 2-1SE3401
Ft. Belvoir, VA 22060-5527

Facsimile number (703) 806-8866 or -8875

Packages sent by FedEx or UPS should be addressed to:

HQ Army Materiel Command
Office of Command Counsel
Room 2-1SE3401
1412 Jackson Loop
Ft. Belvoir, VA 22060-5527

The AMC-level protest procedures are found at:
<http://www.amc.army.mil/amc/cc/protest.html>

If Internet access is not available contact the contracting officer or HQ, AMC to obtain the AMC-Level Protest Procedures.

L-25 52.204-4129 (AATD) MILITARILY CRITICAL TECHNICAL DATA AGREEMENTS (SEP 1999)

a. A certification is required by U.S. or Canadian contractors that wish to obtain access to unclassified technical data disclosing militarily critical technology with military or space application that is under the control or in the possession of the U.S. Department of Defense (DoD) or the Canadian Department of National Defence (DND).

b. As a condition of receiving militarily critical technical data, you must have a seven-digit certification number. You may request a certification number from the Defense Logistics Information Service (DLIS) by forwarding a DD Form 2345, "Militarily Critical Technical Data Agreement," to DLIS. You may obtain the DD Form 2345 by contacting DLIS at the following address:

Customer Service Office
Defense Logistics Information Services
74 Washington Avenue North, Suite 7
Battle Creek, Michigan 49017-3084
Telephone: 1-269-961-4513

c. You may also obtain a DD Form 2345 from the DLIS Web Site at <http://www.dlis.dla.mil/jcp/faq.htm>. The form is available for printing in three different formats: Perform Pro, Form Flow 2.0 and Adobe PDF. Instructions for filling out and dispatching the form are included. A copy of the requesting firm's state/provincial license, incorporation certificate, sales tax identification form or other documentation which verifies the legitimacy of the company must accompany all DD Forms 2345.

d. At this time, there are no associated subscription charges related to the assignment/maintenance of certification numbers.

e. Prior to award to a foreign firm, a determination by the Department of the Army (DA) that the government of the foreign contractor meets appropriate disclosure restrictions, and is, thereby, eligible to participate in the program may be required.

f. DO NOT DELAY SUBMISSION OF YOUR OFFER PENDING RECEIPT OF YOUR CERTIFICATION NUMBER.

(END OF PROVISION)

L-26 52.210-4130 (AATD) DISPOSITION OF DRAWINGS/SPECIFICATIONS (DEC 1992)

Recipients of the solicitation electing not to submit an offer are not required to return the solicitation package. Unclassified solicitations may be retained or destroyed at the recipient's discretion. Disposition of classified solicitations (the classified part(s) thereof) must be in accordance with Section 7 of the National Industrial Security Program Operating Manual (NISPOM) (DOD 5220.22-M).

(END OF PROVISION)

L-27 52.210-4142 (AATD) GOVERNMENT FURNISHED DATA (MAR 1993)

Data listed in sections H as Government Furnished Data will only be furnished to the successful offeror.

(END OF PROVISION)

L-28 52.212-4131 (AATD) ANTICIPATED EFFECTIVE DATE OF CONTRACT (DEC 1992)

For proposal preparation purposes only, the effective date of the contract resulting from this solicitation should be assumed to be 4 November 2004.

(END OF PROVISION)

L-30 52.215-4135 (AATD) PROPOSAL PREPARATION AND SUBMITTAL (DEC 1992)

A. GENERAL INSTRUCTIONS

1. These instructions provide guidance to the offeror in preparing the proposal and describe the approach for development and presentation of the proposed data in response to this solicitation.
2. The proposal must comply fully with these instructions. FAILURE TO DO SO MAY BE CAUSE FOR REJECTION. The proposal shall include all of the information requested in these instructions.
3. The offeror should clearly state how they intend to accomplish this contract. Mere acknowledgment or restatement of a requirement is not acceptable. Relevance to this acquisition effort is critical.
4. The information in the proposal should be presented in a clear, coherent and concise manner. Vague or terse statements such as "will comply", "noted and understood", etc. are not acceptable. The proposal should be limited to the information that is necessary to convey a point and should not be overly elaborate.

B. DELIVERY INSTRUCTIONS

Offerors shall submit one original proposal, clearly marked as the original, of each volume. Each volume shall have a cover sheet marked with the volume number, copy number (e.g., Copy 1 of 3), title, RFP identification, classification and offeror's name. Submission in loose leaf, three-ring binders is preferred. Volume(s) number, copy number and title must also be on the edge of the binder to allow for rapid accountability when placed in a vertical position in a storage cabinet.

C. SPECIAL INSTRUCTIONS FOR PREPARATION OF PROPOSALS

1. Volume Content. Proposals shall be submitted in four volumes. Volume I shall be VOID of proposal cost information unless otherwise stated in the instructions for the volume. Each volume shall clearly and completely describe the effort that the offeror is proposing to accomplish under the contract and contain all required documentation called for in the instruction for the particular volume. Except for the Technical Volume, the number of proposal pages is not limited. The following chart shows the volume number, content, and required number of copies to be submitted.

<u>VOLUME</u>	<u>CONTENT</u>	<u>COPIES</u>
Volume I	Technical Proposal	Original + 5
Volume II	Administrative Information	Original + 2
Volume III	Cost/Price Proposal	Original + 2
Volume IV	Past Performance	Original + 2

2. Volume I (Technical) shall be written and shall consist of a maximum of 100 pages, exclusive of section dividers, Table of Content, Lists of Figures, Glossary of Terms, and Cross-Referencing Indices. The evaluators will read only up to the maximum number of pages specified. Submission shall be limited to the number of pages specified, total inclusive of any drawings, charts, etc. Type shall be no smaller than a font size of ten (10) and shall be at least single spaced. Page size shall not exceed 8 ½" x 11". Fold-out illustrations required for reader ease are allowed, however, illustration shall be counted in 8 ½" x 11" increments (e.g., a 11" x 17" document will count as two pages).

D. TECHNICAL PROPOSAL (Volume I):

Inasmuch as your technical proposal will primarily determine the capability of your organization to participate in this program, it should be specific and complete in every detail. In the offeror's response, any deletions to the Government Statement of Work should be indicated by cross hatching (////) and additions or modifications by underlining, with each revision identified and accompanied by a justification or rationale. The technical proposal should identify technical uncertainties and high risk areas and make specific proposals for their resolution. NO COSTS ARE TO BE SHOWN IN THE TECHNICAL PROPOSAL. The technical volume shall contain the following:

(1) Understanding and Satisfying the Specification.

(i) Preliminary Concept Description. The proposal should contain a preliminary concept description sufficient in detail to explain the major design features of the concept and how the concept meets the requirements set forth in the Specification. Of those requirements, weight reduction is of paramount importance. Each element of the Specification should be addressed by the preliminary concept description. The proposal should discuss proposed solutions to the requirements of the Airworthiness Requirements Document (ARD). The preliminary concept description should contain, as a minimum, drawings or sketches, proposed material selections, a preliminary weight statement, and proposed manufacturing methods. In addition, the proposal should describe the unique considerations that went into designing this item for use and operation in a military and rotorcraft environment.

(ii) Specification and ARD Compliance. This section should address and substantiate the Offeror's understanding of each of the requirements and tasks outlined in the Specification as well as any challenges they present. Any exceptions or proposed additions to the solicitation Specification should be clearly noted. A cross-reference between Section 1, Subsection 1 (Preliminary Concept Description) and Section 1, Subsection 2 should be included. The proposal should substantiate how the proposed design features described in Section 1 address and are intended to satisfy the requirements of the ARD.

(2) Qualifications. This section should describe the relevant experience, skills, methods, and processes that substantiate the Offeror's qualifications to develop and manufacture production LASS articles in compliance with the Specification. Whereas Section 1 addresses the Offeror's understanding of the requirements, this section should

substantiate relevant background experience in design, analysis, and fabrication of similar or related items. Descriptions of personnel, facilities, equipment, design and analysis capabilities, the Computer Aided Design (CAD) system and anticipated deliverable drawing format, and quality assurance programs proposed for use in the LASS development and production should be described.

(3) Schedule. This section should contain two schedules. A simple Task versus Time (Gantt) chart for the development tasks (Tasks 1-6) in the Specification should show a logical, efficient schedule of the proposed milestones, reviews, and activities. A unit production schedule for Task 7 should represent the most efficient production delivery schedule for the minimum and maximum envisioned production quantities. The business volume should reference both schedules to provide a complete understanding of the proposed base and option program price.

E. ADMINISTRATIVE INFORMATION (Volume II):

The administrative volume shall contain the following, as applicable:

1. One (1) complete copy of the solicitation (SF 33 through Section M).

(i) Section A. Complete the OFFER part of the Standard Form 33 format. An official having the authority to bind the firm contractually must sign the SF 33. See L-16

(ii) Section B. Complete the fill-ins to record the proposed cost/price.

(iii) Section G. Complete any required information in the spaces provided, e.g. proposed delivery terms using table below, proposed option exercise date (s).

(iv) Section H. Complete any required information in the spaces provided.

(v) Section K. Complete all the required certifications, representations, and other statements of the offeror unless annual reps and certs are on file with the ACO. If annual reps and certs have been filed, state where and the contact information for any inquiry.

(vi) The Offeror shall complete the tables below to reflect the proposed delivery schedule for CLINs 0002 and 0003 (including 0003AA through 0003AK). Partial delivery is desired and encouraged.

1. CLIN 0002 delivery schedule

Number of Shipsets	Proposed delivery schedule

2. CLIN 0003 (including 0003AA through 0003AK) delivery schedule

Number of Shipsets	Proposed delivery schedule

(vii) Provide other comments concerning the acceptability of all terms and conditions of the solicitation.

2. Amendments to the solicitation must be acknowledged by signature of an official having the authority to bind your firm contractually by the completion of the SF 30 or appropriate annotation on the SF 33.

3. Other documentation required by the solicitation, for example, identity of any technical data or computer software that you or proposed subcontractors assert will be furnished to the Government with limitations/restrictions on Government use pursuant to DFARS 252.227-7017.

4. If GFP/GFD/GFF, etc. are required for performance of any resulting contract and are not identified in the solicitation as items the Government will furnish, any such requirements shall be identified not only in this volume but also prominently in the Technical volume.

F. COST/PRICE PROPOSAL (Volume III):

Each proposal will be presumed to represent the best effort in response to the solicitation. Any inconsistency between proposed performance and cost should be explained in the proposal (for example, if the intended use of new and innovative techniques is the basis for an abnormally low estimated cost, the nature of the techniques and their impact on cost should be explained). Unexplained significant inconsistencies suggest that the offeror does not understand the nature and scope of the work required and/or the cost of performance and may be grounds for elimination of the proposal from the competitive range. The burden of proof as to cost credibility rests with the offeror.

1. FAR 52.215-20, REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997), ALTERNATE III (OCT 1997), ALTERNATE IV (OCT 1997) and as prescribed in FAR 15.408(1)(4), the following proposal instructions replace those in the cited provision:

(i) Submission of cost or pricing data is not required.

(ii) Requirements for other than cost or pricing data.

(1) The Contractor shall develop cost estimates in accordance with its approved estimating system. Standardization of man-hour, and direct cost are necessary for the government technical staff to efficiently evaluate cost realism. Provide this data in the following format with supporting attachments for each contract line item/subcontract line item:

a. A man-hour summary table by labor category, by major program activity and by calendar year.

b. Provide a rate table by calendar year and state whether the rates are Forward Pricing Rate Agreement or Forward Pricing Rate Proposal and date upon which agreement was reached or proposal submitted.

c. Provide summary tables of all direct costs by category of the major program activities by calendar year.

d. The cost/price proposal shall also include one (1) copy of Exhibit A, DD Form (s) 1423, Contract Data Requirements List (Items 17 and 18 completed, if applicable).

The cost information shall establish reasonableness, realism and completeness of the proposed cost for each cost element and must provide sufficient detail to support the price proposed. The pricing sheets must include all proposed cost elements (man-hours, materials and other direct costs) and display the associated direct and indirect rates applied in the computation of each cost.

G. PAST PERFORMANCE INFORMATION (Volume IV):

The offeror and any proposed subcontractor will provide a list of most relevant contracts and/or subcontracts completed during the past three years and all contracts and subcontracts currently in process which are relevant to the proposed effort. Contracts listed may include those entered into by the Federal Government, agencies of state and local governments, and commercial customers. These contracts should be similar in nature to the work required by the scope of work. Past performance information may also be obtained from evaluations prepared in accordance with FAR 42.15. Include the following relevant information for each contract and subcontract:

- 1 Name of contracting activity
- 2 Contract number and type
- 3 Description of product or service
- 4 Total contract value
- 5 Identify the following individuals and include their current address, phone and FAX number:
 - a Procuring Contracting Officer (PCO)
 - b Administrative Contracting Officer (ACO)
 - c Government Program Manager and Technical Monitor for the Project.

Describe the relevancy of the past or current contract to this proposed contract. Relevancy discussions should include end item/deliverable comparisons with respect to use or complexity, continuity of key management and technical personnel and continuity of any teaming arrangement or subcontractors. In the discussions of relevant contract performance, the offeror should address, in each of the following areas, not only successful contract results but more importantly, the controls and improvements now in place to resolve previous or present problems, to ensure that such problems do not affect future performance on the proposed contract:

- (a) Quality of Product or Service - Provide a synopsis of quality of products/services delivered and/or results achieved. Address conformance to contract requirements, specifications and standards of good workmanship (e.g., commonly accepted technical, professional, environmental, or safety and health standards). Discuss the action taken to rectify any identified problem(s).
- (b) Schedule - Provide a synopsis of the percentage of time that "deliverables" were provided on time and/or critical milestones met. Where schedules were modified from the original schedule, discuss the reasons for the change and delivery performance against the modified schedule. For those items or services delivered late, or critical milestones missed, describe how late in time this occurred; the reason deliveries/milestones were late; and the improvement action taken to correct the problem(s).
- (c) Cost Control - Provide the contract cost/price and any internal controls for forecasting, managing, and controlling cost. If costs were exceeded or prices were adjusted, provide the reasons and state the improvement actions taken and current controls now in place to prevent future occurrences.
- (d) Business Relations – Provide a description of any integrated coordinated activities to execute a contract. Specifically, address the timeliness, completeness and quality of problem identification, corrective action plans, proposal submittal, your history of reasonable and cooperative behavior, customer satisfaction and timely management of subcontracts. Describe your process in selection, retaining, supporting, and replacing (when necessary) key personnel.

Past Performance Questionnaire Form (Attachment 2) shall be used to collect performance information. Offerors shall, reproduce as necessary, complete and submit pages 1 and 2 to facilitate collection. Offerors shall complete the questionnaire form for its five most relevant contract efforts whether on-going or completed within the last three years. Offerors should provide completed questionnaires for any proposed subcontractor (exclusive of vendor purchases) on its three most relevant contract efforts. Each offeror will be evaluated on its performance under existing and prior contracts for similar products or services. Performance information will be used for both responsibility determinations and as an evaluation factor to assure best value to the Government.

(END OF PROVISION)

L-32 52.235-4134 (AATD) DEFENSE TECHNICAL INFORMATION CENTER (DEC 1992)
 Phone numbers updated Jul 01

A central registry file of users authorized access to Defense scientific and technical information is maintained by the Defense Technical Information Center (DTIC). Because of the kinds of information DTIC handles, users are required to register for service. For further information you should contact:

Defense Technical Information Center
8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-6218
Main number: 1-800-225-3842
Register on the web at:
<http://www.dtic.mil>

(END OF PROVISION)

L-33 52.235-4143 (AATD) ESTIMATED PROGRAM EFFORT (MAR 1993)

It is estimated that approximately 4,940 man-hours for the development cost of CLIN 0001, inclusive of direct and subcontractor hours, will be required for performance of this program. This information is advisory only and is not cause for restricting what the offeror feels to be a meritorious technical proposal.

(END OF PROVISION)

L- 34 52.245-4148 (AATD) GOVERNMENT FURNISHED FACILITIES AND/OR PROPERTY (AUG 1994)

If your proposal is dependent upon the availability and use of Government-owned facilities and/or property other than that specified in this solicitation, you must clearly delineate these items in your proposal and show evidence of coordination with the cognizant Government Contracting Officer(s). The coordination must address responsibility for any associated costs and the availability of the facilities and/or property to support the program schedule.

(END OF PROVISION)

L-6 Proposal Submission

a. You are invited to submit a proposal in accordance with Paragraph L#30, Proposal Preparation Instructions, to arrive at the office specified in Subparagraph c below no later than 4:00 pm, prevailing local time, 23 August, 2004.

b. All proposals delivered in response to this solicitation shall reflect the following on the address label:

(1) Address indicated in subparagraph c below

(2) Solicitation Number W911W6-04-R-0005

(3) The legend "TO BE DELIVERED UNOPENED TO U.S. Army Research, Development and Engineering Command, Aviation Applied Technology Directorate, Attn: AMSRD-AMR-AA-C (Paulette L. Wilson), Bldg. 401 Lee Blvd., Fort Eustis, VA 23604-5577".

(4) The volume and copy number contained in each box

c. All proposal documents must be delivered to U.S. Army Research, Development and Engineering Command, Aviation Applied Technology Directorate, Attn: AMSRD-AMR-AA-C (Paulette L. Wilson), Bldg. 401 Lee Blvd., Fort Eustis, VA 23604-5577.

d. Please do not submit a transmittal letter with your bid or proposal. Such a letter is unnecessary and statements therein frequently create conflicts or ambiguities, raising the possibility that your bid is nonresponsive to the invitation or that your proposal takes exception to the terms and conditions of the solicitation.

L-35 QUESTIONS BY OFFERORS

All questions regarding this solicitation shall be addressed to the following individuals:

Paulette L. Wilson, Contract Specialist
Aviation Applied Technology Directorate
Bldg. 401 Lee Blvd.
Fort Eustis, Virginia 23604-5577

757-878-2788
757-878-0008 (FAX)
pwilson@aatd.eustis.army.mil

Lauren L. Sebring, Contracting Officer
Aviation Applied Technology Directorate
Bldg. 401 Lee Blvd.
Fort Eustis, Virginia 23604-5577

757-878-4828
757-878-0008 (FAX)
lsebring@aatd.eustis.army.mil

Section M - Evaluation Factors for Award

M-1 EVALUATION OF PROPOSALS

a. Proposals submitted in response to this solicitation will be evaluated in accordance with the criteria set forth in this section. The objective of the evaluation is to determine the affordable proposal that offers the best value to the Government by conducting a trade-off process that considers the technical, business, and past performance areas and all associated evaluation factors/subfactors. The evaluation will be conducted inclusive of all options and quantities. When factors other than price are combined, they are more important than price.

b. The evaluation is divided into three areas: (1) Technical, (2) Business, and (3) Past Performance. The Technical factors are more important than Business factors, which are significantly more important than Past Performance in determining the best value.

CLAUSES INCORPORATED BY FULL TEXT

52.217-5 EVALUATION OF OPTIONS (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(End of provision)

M-2 EVALUATION CRITERIA

1. Basis for Award. A single award will be made to the responsible offeror whose proposal represents the best value to the Government as determined by the evaluation criteria set forth in the solicitation. Proposals will be evaluated according to the following criteria: (1) technical, (2) business (including price and compliance) and (3) past performance. Award will be made without discussions; however, the Government will reserve the right to conduct discussions if the Contracting Officer later determines discussions to be necessary. The respective technical and business committees will conduct an initial evaluation of the proposals. Should one of the offeror's proposal represent the best overall value to the Government, then award will be made based upon the initial offer. Should an award on the initial offer not be pursued, the Government will establish a competitive range and notify all offerors of their inclusion or exclusion. Discussions will be held with those offerors in the competitive range for the purpose of clarifying submissions or correcting deficiencies. Offerors eliminated from the competitive range shall be promptly notified in writing in accordance with FAR 15.503. Following the conclusion of these activities, final proposal revisions will be requested. Final evaluation will be conducted and award will be made to the Offeror (s) whose proposal (s) offer (s) the best overall value to the Government based on the Areas and Factors set forth herein.

2. Factors to be evaluated.

(1) Technical Area. The Technical Area evaluation consists of three elements, listed in decreasing order of importance: Understanding and Satisfying the Specification, Qualifications, and Schedule.

(a) Understanding and Satisfying the Specification. The proposal will be evaluated to assess the extent to which the preliminary concept descriptions will satisfy each of the requirements set forth in the Specification and the Airworthiness Requirements Document (ARD). Of the requirements in the Specification, weight reduction is of

paramount importance. Proposals will be evaluated for evidence that the Offeror understands each of the requirements and tasks outlined in the Specification and in the ARD as well as any challenges they present. Discussions of the unique considerations that went into designing this item for use and operation in a military and rotorcraft environment will be assessed to determine that the Offeror understands the environmental and vibratory severity of the environment in which the product will be used.

(b) Qualifications. Proposals will be evaluated for significant and relevant experience with, and knowledge of, load-bearing structural design, analysis and fabrication, and the materials proposed for use in this application. The Offeror's facilities, tools and personnel will be evaluated to determine the Offeror's capability to properly design, analyze, and fabricate their product. Quality assurance processes and certifications will be assessed to ensure prototype and production work will be consistent.

(c) Schedule. The proposed schedule will be analyzed to determine whether the proposed timeframes are realistic for the work to be performed, reflect a clear understanding of the requirements, reflect an appropriate level of effort, take into account risk and uncertainties, and are consistent with the unique methods described in the Offeror's technical proposal.

(2) Business Area. The business evaluation consists of Price and Compliance With Terms and Conditions of the Solicitation. Price consists of the following two subfactors that are of equal importance: Reasonableness and Cost Realism. Price is significantly more important than Compliance. However, with regard to the Compliance factor, any proposed exception that necessitates deviation of a statutorily or regulatory required term or condition could result in the Offeror not receiving an award.

(a) Price

(i) Subfactor – Reasonableness. A price analysis will be performed to determine, as necessary, the degree to which individual cost elements and the overall price is fair and reasonable considering issues such as economy, efficiency, risk and uncertainty of performance.

(ii) Subfactor – Cost Realism. The proposed price will be analyzed to determine whether the proposed cost elements are realistic for the work to be performed; reflect a clear understanding of the requirements; and are consistent with the unique methods of performance and materials described in the Offeror's technical proposal.

(b) Compliance With Terms and Conditions of the Solicitation. The Offeror's representations and certifications, compliance with special and general provisions, and rationale for exceptions taken to any terms and conditions will be evaluated for acceptability.

3. Past Performance Area.

The Past Performance Area will be evaluated by the Performance Risk Assessment Group (PRAG) who will assess each Offeror's related present and past performance record to determine the performance risk associated with each proposal. Present and past (completed within the last three years) performance will be considered. Performance data and sources to be evaluated by the PRAG will be furnished by each Offeror and submitted on Past Performance Questionnaires (see Attachment 2) provided with the solicitation. Offerors with no relevant performance history will receive a neutral rating (i.e. unknown risk). The past performance evaluation consists of four equally important factors; each will be evaluated to determine associated performance risk as follows:

(a) Quality of Service. The Offeror's record of performance as it relates to conformance to contract requirements, specifications and standards of good workmanship, problem-identification/resolution, and initiative in identifying user needs and recommending technical solutions will be assessed.

(b) Schedule. The Offeror's record of adherence to schedules for technical milestones and contract deliveries.

(c) Cost Control. The Offeror's record of cost control and timeliness, accuracy and completeness of any requests for adjustment in estimated cost will be assessed.

(d) Business Relations. The Offeror's record considering the effectiveness with which it interfaces with Government counterparts and its responsiveness to Government inquiries/directions will be assessed. Additionally, the Offeror's record of effective subcontract management and selection, retention, support and replacement of key personnel will be assessed.

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved

OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. 0001	B. EXHIBIT A	C. CATEGORY: TDP TM OTHER X
--	------------------------	--

D. SYSTEM/ITEM Lightweight Armament Support Structure (LASS)	E. CONTRACT/PR NO. W911W6-04-R-0005	F. CONTRACTOR
---	---	----------------------

1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM TEST PLAN	3. SUBTITLE ENGINEER DESIGN TEST PLAN
---------------------------------	---	---

4. Authority (DATA Acquisition document No.) DI-NDT1-80566	5. CONTRACT REFERENCE C-4.3.2	6. REQUIRING OFFICE AMSRD-AMR-AA-S
--	---	--

7. DD 250 REQ LT	9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION See Block 16	14. DISTRIBUTION	
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	a. ADDRESSEE	b. COPIES
					Draft Final
					Reg Repro

16. REMARKS The Contractor shall submit engineer design test plan 15 days prior to Baseline EFS Rigidity Testing. Approval / recommended changes will be provided within 7 days of submission. *Furnished copy of transmittal letter only. Addressee sheet for a listing of e-mail and postal mailing addresses for the individuals listed in Block 14 will be provided to the successful Offeror. DISTRIBUTION STATEMENT C: <u>Distribution Statement C:</u> Distribution authorized to U.S. Government agencies and their contractors, Critical Technology, (fill in the date- <i>use contract award date</i>). Other requests for this document shall be referred to the Aviation Applied Technology Directorate, ATTN: Security Office, Building 401, Lee Blvd., Fort Eustis, VA 23604-5577. "WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, <u>et. seq.</u>) or the Export Administration Act of 1979, as amended, Title 50, U.S.C. App. 2401 <u>et. seq.</u> Violations of these export laws are subject to severe criminal penalties. Destroy by any method that will prevent disclosure of contents or reconstruction of the document.	AMSRD-AMR-AA-C		1	
	AMSRD-AMR-AA-S		1	
	*ACO		1	
	15. TOTAL			3

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
-----------------------	----------------	-----------------------	----------------

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved

OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. 0001	B. EXHIBIT A	C. CATEGORY: TDP TM OTHER X
--	------------------------	--

D. SYSTEM/ITEM Lightweight Armament Support Structure (LASS)	E. CONTRACT/PR NO. W911W6-04-R-0005	F. CONTRACTOR
---	--	----------------------

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A002	AIRFRAME RIGIDITY TEST REPORT	

4. Authority (DATA Acquisition document No.)	5. CONTRACT REFERENCE	6. REQUIRING OFFICE
DI-MISC-81387	C-4.3.2	AMSRD-AMR-AA-S

7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE TIME	12. DATE OF FIRST SUBMISSION See Block 16	14. DISTRIBUTION			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION N/A	a. ADDRESSEE	Draft	b. COPIES Final	
							Reg

[illegible]

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved

OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. 0001	B. EXHIBIT A	C. CATEGORY: TDP TM OTHER X
--	------------------------	--

D. SYSTEM/ITEM Lightweight Armament Support Structure (LASS)	E. CONTRACT/PR NO. W911W6-04-R-0005	F. CONTRACTOR
--	---	----------------------

1. DATA ITEM NO. A003	2. TITLE OF DATA ITEM PRODUCT DRAWINGS AND ASSOCIATED LISTS	3. SUBTITLE
---------------------------------	---	--------------------

4. Authority (DATA Acquisition document No.) DI-SESS-81000B	5. CONTRACT REFERENCE C-4.3.3, 4.3.4	6. REQUIRING OFFICE AMSRD-AMR-AA-S
---	--	--

7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED C	10. FREQUENCY R/ASR N/A	12. DATE OF FIRST SUBMISSION See Block 16	14. DISTRIBUTION		
8. APP CODE A		11. AS OF DATE	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	a. ADDRESSEE	b. COPIES	
					Draft	Final
						Reg
						Repro

16. REMARKS The Contractor shall submit product drawings and associated lists for review 15 days prior to critical design review (CDR). Approval / recommended changes will be provided within 15 days after review. The Contractor shall submit second submittal and any revisions of product drawings and associated lists within 30 days after completion of all technical effort under Section C. Approval/recommended changes will be provided within 30 days after review. Product drawings and associated lists shall be submitted in contractor format. *Furnished copy of transmittal letter only. Addressee sheet for a listing of e-mail and postal mailing addresses for the individuals listed in Block 14 will be provided to the successful Offeror. DISTRIBUTION STATEMENT C: <u>Distribution Statement C:</u> Distribution authorized to U.S. Government agencies and their contractors, Critical Technology, (fill in the date- <i>use contract award date</i>). Other requests for this document shall be referred to the Aviation Applied Technology Directorate, ATTN: Security Office, Building 401, Lee Blvd., Fort Eustis, VA 23604-5577. "WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, <u>et. seq.</u>) or the Export Administration Act of 1979, as amended, Title 50, U.S.C. App. 2401 <u>et. seq.</u> Violations of these export laws are subject to severe criminal penalties. Destroy by any method that will prevent disclosure of contents or reconstruction of the document.	AMSRD-AMR-AA-C	1	1		
	AMSRD-AMR-AA-S	1	1		
	*ACO		1		
		15. TOTAL	2	3	

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
-----------------------	----------------	-----------------------	----------------

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved

OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. 0001	B. EXHIBIT A	C. CATEGORY: TDP TM OTHER X
--	------------------------	--

D. SYSTEM/ITEM Lightweight Armament Support Structure (LASS)	E. CONTRACT/PR NO. W911W6-04-R-0005	F. CONTRACTOR
---	---	----------------------

1. DATA ITEM NO. A004	2. TITLE OF DATA ITEM SPECIAL TOOLING (ST) DRAWINGS AND ASSOCIATED LISTS	3. SUBTITLE
---------------------------------	--	--------------------

4. Authority (DATA Acquisition document No.) DI-SESS-81008B	5. CONTRACT REFERENCE C-4.3.3, 4.3.4	6. REQUIRING OFFICE AMSRD-AMR-AA-S
---	--	--

7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED C	10. FREQUENCY R/ASR	12. DATE OF FIRST SUBMISSION See Block 16	14. DISTRIBUTION		
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	a. ADDRESSEE	b. COPIES	
					Draft	Final
					Reg	Repro

16. REMARKS The Contractor shall submit special tooling drawings and associated lists for review 15 days prior to critical design review (CDR). Approval / recommended changes will be provided within 15 days after review. The Contractor shall submit second submittal and any revisions of special tooling drawings and associated lists within 30 days after completion of all technical effort under Section C, Statement of Work. Approval/recommended changes will be provided within 30 days after review. Special tooling drawings and associated lists shall be submitted in contractor format. *Furnished copy of transmittal letter only. Addressee sheet for a listing of e-mail and postal mailing addresses for the individuals listed in Block 14 will be provided to the successful Offeror. DISTRIBUTION STATEMENT C: <u>Distribution Statement C:</u> Distribution authorized to U.S. Government agencies and their contractors, Critical Technology, (fill in the date- use contract award date). Other requests for this document shall be referred to the Aviation Applied Technology Directorate, ATTN: Security Office, Building 401, Lee Blvd., Fort Eustis, VA 23604-5577. "WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et. seq.) or the Export Administration Act of 1979, as amended, Title 50, U.S.C. App. 2401 et. seq. Violations of these export laws are subject to severe criminal penalties. Destroy by any method that will prevent disclosure of contents or reconstruction of the document. 	AMSRD-AMR-AA-C	1	1	
	AMSRD-AMR-AA-S	1	1	
	*ACO		1	
	15. TOTAL		2	3

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
-----------------------	----------------	-----------------------	----------------

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)					Form Approved OMB No. 0704-0188		
<small>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</small>							
A. CONTRACT LINE ITEM NO. 0001		B. EXHIBIT A		C. CATEGORY: TDP TM OTHER X			
D. SYSTEM/ITEM Lightweight Armament Support Structure (LASS)			E. CONTRACT/PR NO. W911W6-04-R-0005		F. CONTRACTOR		
1. DATA ITEM NO. A006	2. TITLE OF DATA ITEM MATHEMATICAL MODEL FINITE ELEMENT ANALYSIS REPORT			3. SUBTITLE			
4. Authority (DATA Acquisition document No.) DI-GDRQ-81257A			5. CONTRACT REFERENCE C-3.3.3		6. REQUIRING OFFICE AMSRD-AMR-AA-S		
7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE TIME	12. DATE OF FIRST SUBMISSION See Block 16		14. DISTRIBUTION		
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION N/A		a. ADDRESSEE	b. COPIES	
						Draft	Final
						Reg	Repro
16. REMARKS The Contractor shall submit mathematical model finite element analysis report 15 days prior to critical design review (CDR). Report must be delivered in electronic format. *Furnished copy of transmittal letter only. Addressee sheet for a listing of e-mail and postal mailing addresses for the individuals listed in Block 14 will be provided to the successful Offeror. DISTRIBUTION STATEMENT C: <u>Distribution Statement C:</u> Distribution authorized to U.S. Government agencies and their contractors, Critical Technology, (fill in the date- <i>use contract award date</i>). Other requests for this document shall be referred to the Aviation Applied Technology Directorate, ATTN: Security Office, Building 401, Lee Blvd., Fort Eustis, VA 23604-5577. "WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, <i>et. seq.</i>) or the Export Administration Act of 1979, as amended, Title 50, U.S.C. App. 2401 <i>et. seq.</i> Violations of these export laws are subject to severe criminal penalties. Destroy by any method that will prevent disclosure of contents or reconstruction of the document.					AMSRD-AMR-AA-C		1
					AMSRD-AMR-AA-S		1
					*ACO		1
15. TOTAL						3	
G. PREPARED BY		H. DATE		I. APPROVED BY		J. DATE	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

(1 Data Item)

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

Form Approved
OMB No. 0704-0188

OMB No. 0704-0188

A. CONTRACT LINE ITEM NO. 0001	B. EXHIBIT A	C. CATEGORY: TDP TM OTHER X		
--	------------------------	---	--	--

1. DATA ITEM NO.	2. TITLE OF DATA ITEM	3. SUBTITLE
A008	FAILURE MODE, EFFECTS, AND CRITICALITY ANALYSIS REPORT	

17. PRICE GROUP

7. DD 250 REQ DD	9. DIST STATEMENT REQUIRED	10. FREQUENCY ONE/R	12. DATE OF FIRST SUBMISSION See Block 16	14. DISTRIBUTION		
8. APP CODE A	C	11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	a. ADDRESSEE	b. COPIES	
					Draft	Final
					Reg	Repro

**18. ESTIMATED
TOTAL PRICE**

G. PREPARED BY	H. DATE	I. APPROVED BY	J. DATE
-----------------------	----------------	-----------------------	----------------

AIRWORTHINESS REQUIREMENTS DOCUMENT (ARD)
LIGHTWEIGHT ARMAMENT SUPPORT STRUCTURE (LASS)
FOR MH-60L/M HELICOPTERS
INTEGRATED DEFENSIVE ARMED PENETRATOR (IDAP) AND
ARMED AERIAL ESCORT (AAE)
VARIANTS

Prepared By:

US Army Research, Development and Engineering Command (RDECOM)
Aviation Engineering Directorate (AED)
Special Operations Aircraft Division
Building 4488
Redstone Arsenal, Alabama 35898

31 March 04

The ARD contains all the airworthiness substantiation requirements for use by the Technology Applications Program Office Program Manager (TAPO PM) in preparation of the Airworthiness Requirements Specification (ARS).

APPROVED: _____
DENNIS S. POWELSON
Director of Aviation Engineering

Lightweight Armament Support Structure (LASS) ARD

Table of Contents

1.0	SCOPE:	1
2.0	SYSTEM CONFIGURATION:	1
2.1	System Classification:	1
2.2	Design Assumptions:	2
3.0	AIRWORTHINESS PROCESS:	2
3.1	Initial Requirements:	2
4.0	SUBSTANTIATION METHODS:	3
4.1	Environmental Testing Matrix:	3
4.2	Electromagnetic Environment (EME) Testing Matrix (MIL-STD-461E, ADS-37A):	4
4.3	Environmental Testing Matrix:	4
4.4	Substantiation by Similarity:	5
4.5	Substantiation by Analysis:	6
4.6	Substantiation by Testing:	6
4.7	Substantiation by Survey/Demonstration:	6
5.0	TESTING PROCESS:	6
5.1	Test Schedule:	6
5.2	Government Test Witnessing/Participation:	6
5.3	Test Plans:	7
5.4	Initial Line Replaceable Unit (LRU) Safety-of-Flight (SOF) Technical Data:	7
5.5	System Level Technical Data:	7
6.0	SAFETY:	8
6.1	System Safety Hazard Analysis Report (SSHA):	8
6.2	Safety Assessment Report (SAR):	8
7.0	INITIAL INSTALLATION/FLIGHT TEST AWR REQUIREMENTS:	8
7.1	Aircraft Configuration for Demonstration:	8
7.2	Ground Tests:	9
7.3	Production Level Drawings:	9
7.4	Line Replaceable Unit (LRU)/Systems Installation Level Structural Substantiation:	9
7.5	Weight and Balance Analysis:	10
7.6	Quantitative Electromagnetic Compatibility (EMC):	10
7.7	Flight Test Plans and Reports:	11
7.8	Operation/Maintenance Instructions:	11

Lightweight Armament Support Structure (LASS) ARD

7.9 Hazards of Electromagnetic Radiation to Ordinance (HERO):	11
8.0 PRODUCTION AWR REQUIREMENTS:	11
8.1 Lightning:	11
8.2 Electro-Static Discharge (ESD):	11
8.3 Electromagnetic Compatibility (EMC):	11
8.4 Electromagnetic Vulnerability (EMV):	11
8.5 Environmental Bench Level Testing:	12
9.0 PROGRAM REVIEWS:	12
9.1 Preliminary Design Review (PDR):	12
9.2 Critical Design Review (CDR):	12
9.3 Test Readiness Review (TRR):	13
9.4 Production Readiness Review (PRR):	13
10.0 Appendix A:	14
11.0 Appendix B:	16
12.0 Appendix C:	17

Lightweight Armament Support Structure (LASS) ARD

1.0 SCOPE:

This Airworthiness Requirements Document (ARD) defines the engineering requirements for the Army Special Operations Aircraft (ARSOA) Lightweight Armament Support Structure (LASS) Airworthiness Release (AWR). The LASS system is a replacement for the four station External Stores Support System (ESSS) or two station External Fuel System (EFS) wings. The ESSS and EFS stations can hold both fuel and ordnance while the LASS can only hold ordnance. These stations are currently used to carry ordnance for the IDAP and AAE aircraft. These structures incorporate fuel line plumbing, wiring, and structure required to carry the heavy fuel tanks. The intent of the LASS is to reduce the weight of the current systems while maintaining the identical weapon store attachments and locations.

The requirements stated herein are broken down to those that must be completed prior to the first flight and those that must be met prior to production fielding of the LASS. This ARD is structured as a core document to define the LASS component and system level integration requirements, and is intended to be used by the Technical Applications Program Office Program Manager (TAPO PM) (hereafter referred to as PM) or contractor to develop an Airworthiness Requirements Specification (ARS) with the goal of obtaining flight test and production AWRs.

NOTE: The Aviation Applied Technology Directorate (AATD) is working as agent for the TAPO PM and for the purposes of this ARD the PM refers to AATD.

2.0 SYSTEM CONFIGURATION:

This ARD is based on the following information and assumptions; any changes to the assumed configuration may require additional substantiation requirements before an AWR is issued.

2.1 System Classification:

For the purposes of this document, the LASS is considered Mission Essential. The LASS system shall meet the requirements of this ARD for the system as installed on the MH-60L IDAP/AAE. If the component(s) fails to meet the requirements, the Aviation Engineering Directorate (AED) may require redesign and subsequent additional engineering efforts until the component meets all relevant airworthiness requirements.

Lightweight Armament Support Structure (LASS) ARD

2.2 Design Assumptions:

- 2.2.1 The LASS will not contain any fuel system components nor be used to carry fuel tanks.
- 2.2.2 The LASS will include wiring necessary to interface with the ordnance. This will include MIL-STD-1760 wiring and/or wiring to interface with the current system.
- 2.2.3 The LASS will interface with or provide stores ejection capabilities.
- 2.2.4 The LASS will contain one weapon station per side. Mounting provisions will be provided for future applications on the wing tip.
- 2.2.5 The LASS will be installed on the MH-60L and MH-60M aircraft.
- 2.2.6 Ejector racks and weapon stores will be in the same three dimensional space as the current application.

3.0 AIRWORTHINESS PROCESS:

An AWR is required to fly non-standard hardware and/or software installed on 160th Special Operations Aviation Regiment (SOAR) aircraft. The US Army Research, Development and Engineering Command (RDECOM), Aviation Engineering Directorate (AED) at Redstone Arsenal, Alabama is the government airworthiness authority and will issue the appropriate AWR when requirements have been met. The airworthiness process involves testing and systems analyses to ensure safety of flight and a demonstrated capability to function satisfactorily when used within prescribed limits. The path to field a non-standard aircraft system and/or sub-system begins with AED developing an ARD to document the engineering requirements for AWR approval.

3.1 Initial Requirements:

The PM shall document the recommended process to meet the engineering requirements outlined in the ARD. The following documents shall be submitted to AED for review and approval prior to starting the engineering testing process:

NOTE: The PM is the final approval authority for all contractual documents. All airworthiness data shall be forwarded through the PM to AED. The AED shall review all data from an airworthiness perspective and provide approval/disapproval of the data as acceptable for airworthiness substantiation.

Lightweight Armament Support Structure (LASS) ARD

3.1.1 Airworthiness Requirements Specification (ARS): The ARS shall be prepared and submitted for approval by AED. The ARS shall define the PM or contractor's approach for conducting specific analyses, reviews, testing, demonstrations, and surveys to fulfill the requirements of this ARD. All specification requirements, proposed methods, and requirement documents shall be submitted as part of the ARS.

3.1.2 Verification Matrix: The verification matrix shall document all of the system engineering requirements in the ARD. At the matrix intersection between each system requirement and system shall be an indication of substantiation method.

3.1.3 Integrated Master Schedule: The integrated master schedule shall reflect the sequencing of substantiation testing and shall reflect the timeline requirements for test plan and/or report submissions to PM/AED.

4.0 SUBSTANTIATION METHODS:

Substantiation is required and shall be performed to verify compliance with this ARD. The substantiation method for each requirement shall be reviewed and approved by AED. The substantiation methods shall be by similarity, analysis, test, demonstration, or by examination in this respective preferred order. The following tables summarize the Electromagnetic Environment (EME) tests that shall be required:

4.1 Environmental Testing Matrix

<u>Test</u>	<u>MIL-STD-810F</u> <u>Method</u>	<u>Required</u>	<u>Procedure</u>
Altitude (Low Pressure)	500.4	Before Flight	I-Storage
High Temperature	501.4	Before Flight	I-Storage
Low Temperature¹	501.4	Before Flight	I-Storage
Vibration	514.5	Before Flight	I-Category 18
Temperature Shock	503.4	PAR	II
Solar Radiation	505.4	PAR	I-Solar Heating II- Actinic
Rain	506.4	PAR	I-Rain
Sand and Dust	510.4	PAR	II-Blowing Sand
Humidity	507.4	PAR	
Fungus	508.5	PAR	Analysis may be acceptable ¹
Salt Fog	509.4	PAR	
Icing/Freezing Rain	521.2	PAR	I
Gunfire Vibration	519.5	PAR	IV-M230, M134, M240

NOTES:

Bolded items are required prior to first test flight, while the other tests listed above are required prior to the Production Airworthiness Release (PAR). Recommended indicates testing that should be successfully completed to validate equipment durability claims.

Lightweight Armament Support Structure (LASS) ARD

Environmental testing requirements are to be reviewed at the PDR as to applicability based on design and material.

¹ If conducted by analysis, a listing of all parts and chemical-based substances (glues, sealants, etc.) employed in the design shall be provided.

4.2 Electromagnetic Environment (EME) Testing Matrix (MIL-STD-461E, ADS-37A) ¹

<u>EME Test</u>	<u>Procedure</u>	<u>Required</u>
EMC	Electromagnetic Compatibility IAW ADS-37A-PRF (see paragraphs 7.6 below)	Before Flight
HERO	IAW ADS-37A-PRF (see paragraph 7.9 below)	Before Flight
ESD	IAW ADS-37A-PRF (see paragraph 8.2 below)	Before Flight
Lightning	IAW ADS-37A-PRF (see paragraph 8.1 below)	PAR
EMV	IAW ADS-37A-PRF (see paragraph 8.4 below)	PAR

¹NOTE: **Bolded items are required prior to first test flight**, while the other tests listed above are required prior to the Production Airworthiness Release (PAR).

The following table summarizes the aircraft level tests that shall be required:

4.3 Environmental Testing Matrix

<u>Requirement</u>	<u>Method ADS-45</u>	<u>Required</u>	<u>Procedure</u>
Ground Tests		Before Flight	Demonstrate Boresight, Launcher Freeplay, Verify Clearance
Safety Statement/Hazard Analysis.	4.1	Before Flight	Jettison or Engine Inlet Firing footprint needs to be addressed as change in stiffness may have an effect.
Mechanical Load Analysis.	4.2	Before Flight	
Weight and Balance Report.	4.3	Before Flight	
Stress Analysis.	4.4	Before Flight	
Preliminary Dynamic Analysis	4.5	Before Flight	Modal Survey required for 0 to full for all applicable weapons configuration mix.

Lightweight Armament Support Structure (LASS) ARD

<u>Requirement</u>	<u>Method</u> <u>ADS-45</u>	<u>Required</u>	<u>Procedure</u>
Electromagnetic Environmental Effects (E3).	4.7	Before Flight	
Clearance Analysis	4.8	Before Flight	
Blast Overpressure Analysis	4.9	Before Flight	
Test Specification	4.11	Before Flight	
Weapon's Demo	8.1 ADS-44	PAR	Witness/ determine safe Gun, Rocket, and Hellfire Operation and Airframe Response Vibration and Recoil Loads.
Engine Airframe Compatibility	ADS-1B	PAR	Instrument DECU and HMU for vibration during Weapon's firing

4.4 Substantiation by Similarity:

Substantiation by Similarity (SBS) commonly referred to as Qualification by Similarity (QBS), may be proposed for components or systems that have been successfully substantiated for flight and approved by AED for use in the Army aviation environment. Such components and systems shall qualify by similarity and be categorized as Category I, II, or III as defined below. If SBS is proposed, the original substantiation reports for similar systems shall be cited to AED as part of the SBS effort and provided if requested. Additionally, as a minimum, SBS data submittals shall include the appropriate drawings, schematics, analyses, listings of the appropriate government, contractor, or military specifications, including revisions that apply to the LASS system, copies of contractor specific procedures or specifications, and performance data. In the event that the required data is not made available, formal testing or new analyses may be required. The formal SBS report shall be submitted to AED for comments and approval. If the substantiation by similarity is disapproved, the component(s) shall be substantiated by test(s) or new analyses.

4.4.1 Category I: Defined as those components used in the design that are identical to components substantiated in previous designs that have identical operational and environmental requirements. Substantiation reports for items in this category shall list each part by name, part number, and the other system in which the part was used.

4.4.2 Category II: Defined as a component that was previously substantiated, but has been slightly modified from the previously substantiated configuration. The modified component must be used in a similar operation and a similar environment as the previously substantiated component. Reports for these items shall list the component name, description, part number, and

Lightweight Armament Support Structure (LASS) ARD

a similarity rationale detailing why the modification to the part is minor enough to waive other substantiation methods.

4.4.3 Category III: Defined as those components which have been used in similar design applications by other contractors/companies and which are proposed to be substantiated by similarity. Reports for these items shall list the component name, description, part number, and a technical rationale detailing why the differences in design applications are minor enough to waive other substantiation methods.

NOTE: For Category II and III components, the similarity rationale and its supporting documentation shall include at least two separate drawings that compare the two components, part to part, clearly depicting the similarities and differences between the two components.

4.5 Substantiation by Analysis:

Substantiation by analysis involves proving an item meets its design requirements by a technical evaluation of equations, charts, graphs, circuit diagrams, and representative data.

4.6 Substantiation by Testing:

Substantiation by testing shall be used for component, subassembly and systems that do not meet substantiation by similarity or analysis standards. Testing shall include government approved test plans and procedures, test reports, Government witnessing (as required). All test deviations from known requirements or procedures (due to test tailoring or otherwise) shall be noted in the test document with accompanying rationale.

4.7 Substantiation by Survey/Demonstration:

Substantiation by survey/demonstration may be conducted to show the capability of the system or sub-system to comply with this ARD.

5.0 TESTING PROCESS:

5.1 Test Schedule:

A master test schedule of Contract Data Requirements List (CDRL) deliverables and planned component, subsystem, ground, and flight tests shall be provided to AED for review and comment. The schedule should be structured to validate component/system maturity prior to system surveys and demonstrations.

5.2 Government Test Witnessing/Participation:

Based on the master test schedule, AED and the aircraft PM will designate those tests that will require Government witnessing and participation. The PM shall be notified in sufficient time before conducting any required test, or before component disassembly following a test, so that they can arrange for an AED representative to witness the test or component disassembly. Typically, AED requires 30 days notification prior to any component, subsystem, or system airworthiness engineering test or demonstration.

Lightweight Armament Support Structure (LASS) ARD

5.3 Test Plans:

Engineering test plans/procedures shall be prepared for all the tests and demonstrations required by this ARD and shall be submitted to AED for review and approval. Test plans/procedures shall be submitted for approval no later than 30 days prior to the start of test, survey, or demonstration to preclude schedule issues. Government approved test plans shall be used to conduct all tests. The test plan shall be prepared and submitted in accordance with the Integrated Master Schedule.

5.3.1 Documentation of all results of tests, demonstrations, and analysis required by this ARD shall be submitted for acceptance to verify compliance with applicable design requirement. Reports shall be submitted for distribution within 45 days of test completion. Reports developed from tests conducted at Government facilities, where the Government is the responsible data collector, shall be distributed within 45 days following receipt of the test data from Government facilities.

5.4 Initial Line Replaceable Unit (LRU) Safety-of-Flight (SOF) Technical Data:

5.4.1 Altitude (Low Pressure), Procedure I

5.4.2 High Temperature, Procedure I Storage

5.4.3 Low Temperature, Procedure I Storage

5.4.4 Vibration: A modal survey will be conducted as listed in table 4.3

NOTE: Environmental testing requirements are to be reviewed at the PDR as to applicability based on design and material.

5.5 System Level Technical Data:

5.5.1 System Acceptance Test Procedure:

The acceptance test plan shall describe plans for substantiation testing of the LASS system. It identifies the test to be performed and provides schedules for test activities. The system acceptance test procedure will be a proof load test. Test loads will be 100% of the design loads because design loads are already ultimate (crash) loads. Any operational loads will be tested to 150%. The system acceptance test procedure shall also address the method(s) that will be used to perform software regression testing, if required, for the safety requirements identified in the SAR.

5.5.2 System Acceptance Test Report:

The test/inspection report shall record the results of the substantiation tests performed on the LASS system per the procedures provided in the System Acceptance Test Procedure document.

5.5.3 System Failure Mode Effects and Criticality Analysis (FMECA):

A FMECA (DI-ILSS-81495) shall be submitted to AED for review and approval. A LASS product specification and any Interface Control Documents (ICDs) are required.

Lightweight Armament Support Structure (LASS) ARD

5.5.4 Engineering and Installation Drawings:

In accordance with ASME-Y14.100-2000, engineering and installation drawings that define the installation for all new or modified systems shall be submitted. These shall address all system-unique features and interfaces with the aircraft.

6.0 SAFETY:

The following safety related artifacts, as a minimum, shall be required:

6.1 System Safety Hazard Analysis Report (SSHA):

The SSHA shall be written IAW DI-SAFT-80101B and shall systematically identify and evaluate safety hazards, both real and potential, for the purpose of their elimination or control. The SSHA shall be written in the context of the LASS mission and the LASS operational environment. A preliminary SSHA shall be provided to AED 45 days prior to the Test Readiness Review (TRR).

6.2 Safety Assessment Report (SAR):

The SAR shall be written IAW DI-SAFT-80102B and shall identify all safety features of the system and any procedural hazards that may be present. The SAR shall specify the procedural controls and associated precautions to be followed during and operation and test of the LASS system. The report shall identify all safety requirements that were not implemented or partially implemented, and those hazards that were risk minimized. A preliminary SAR shall be provided to AED 45 days prior to the TRR. As a minimum, the SAR shall include the following analyses:

6.2.1 Jettison of launchers and their release systems.

6.2.2 Hangfire of missiles.

6.2.3 Armament firing footprint for firing from hovering and moving helicopter.

6.2.4 All possible premature firing via processor malfunctions.

6.2.5 Engine inlet temperature and pressure distortion effects and the effects of ingestion of propellant combustion products and debris generated by weapon firing. The engine performance transients generated by the above conditions shall be estimated if data recording equipment is not available.

6.2.6 Clearance Analysis. A clearance analysis shall prove that there is sufficient clearance between the rotors and fuselage and the weapons trajectories in accordance with MIL-STD-1289D, which includes firing, launching, debris trajectories/impingement, and jettison as well as the aircraft's landing operations.

7.0 INITIAL INSTALLATION/FLIGHT TEST AWR REQUIREMENTS:

7.1 Aircraft Configuration for Demonstration:

Aircraft used for the performance of formal test demonstrations shall be identical in all aspects, pertinent to the subject demonstrations, to production aircraft. Onboard test instrumentation will be the only exception.

Lightweight Armament Support Structure (LASS) ARD

7.2 Ground Tests:

Ground tests are defined as all testing performed off the aircraft or on the aircraft without the rotors turning. Ground tests do not require an airworthiness release.

7.3 Production Level Drawings:

Using ASME-Y14.100-2000 as a guide, all drawings shall provide sufficient dimensions and tolerances to clearly define all load paths and allow the structural analysis to be verified. All drawings shall have the current date and revision number, and the package shall contain a complete drawing list. A copy of all contractor specifications and processes shall be provided.

7.4 Line Replaceable Unit (LRU)/Systems Installation Level Structural Substantiation:

A structural substantiation shall be performed for the LASS installation. Structural integrity shall be assessed to ensure that all new or modified structural members have been analyzed and exhibit positive margins of safety and that the structural integrity and the fatigue strength of the existing structure is not compromised. This analysis shall include a structural substantiation to verify that all components of the LASS system can withstand the worst case operational and crash loads without causing the equipment to break loose, causing degradation to surrounding structure and equipment, or harming personnel. The structural substantiation shall address mounting of all components assemblies, and installation of the LASS and shall verify that the structural capacity of the existing aircraft structure has not been reduced or has been adequately restored.

NOTE: The adequacy of the structural design and analyses presented will be evaluated IAW SOP EF2002-111.

7.4.1 Structural Design Criteria Report shall include the following as a minimum:

- (1) Basic system parameters
- (2) Weight configuration criteria
- (3) Flight maneuver criteria
- (4) Miscellaneous flight criteria
- (5) Ground loads criteria
- (6) Miscellaneous ground criteria
- (7) Damage threshold requirements
- (8) Landing and ground handling loads methodology
- (9) Crashworthiness
- (10) Store jettison loads
- (11) Ordnance firing loads
- (12) Safety factors, margins of safety and material properties
- (13) Environmental criteria

Lightweight Armament Support Structure (LASS) ARD

7.4.2 Stress Analysis Report, in addition shall include the following:

- (1) Finite Element Model, Model Description, and Internal Loads (electronic format)
- (2) Structural description

7.4.3 Materials Report shall include the following as a minimum:

- (1) Material Allowables Report, including environmental knockdowns
- (2) Materials test plans
- (3) Materials process specification

7.4.4 Static Test Plan

7.4.5 Static Test Report

7.4.6 Component Crash Loads Structural Analysis:

The minimum ultimate crash load factors for side mounted external stores shall be any combination of the following:

Direction	Load Factors
NX (Longitudinal)	+6g's Fwd
NZ (Vertical)	+6g's Down/-3g's Up
NY (Lateral)	6g's Inboard/3g's Outboard

7.5 Weight and Balance Analysis:

The weight and balance analysis shall depict the new equipment impacts for the specific test aircraft. The weight and balance report shall be IAW DI-MGMT-81501, section 10.2.1b, d, f, j (2, 3) and section 10.2.2b and c.

7.6 Quantitative Electromagnetic Compatibility (EMC):

All new equipment installations on the aircraft shall be tested at the aircraft level in accordance with the EMC test requirements of ADS-37A-PRF to include Electro-Explosive Devices (EEDs). For the purposes of the LASS, only EEDs installed on the LASS or Weapon Stores are required to be tested. The EMC test plan and report shall be reviewed and approved by AED. Based upon the EMI testing and analysis, a spectrum analysis test may be required. EMC testing ensures new electronic equipment is compatible with all other electronic equipment on the aircraft, and does not serve as a source or victim of EMI. EMC testing without mission kits will result in a restriction against flying with the non-EMC tested mission kit.

Lightweight Armament Support Structure (LASS) ARD

NOTE: Excessive conducted emissions may require an on-aircraft power quality check, and excessive radiated emissions may require an on-aircraft Spectrum Analysis (SA) test prior to the initial test flight. Additionally, a communications/navigation check may be required for a PAR.

7.7 Flight Test Plans and Reports:

The flight test plan and report shall include the following evaluations:

7.7.1 Verify that LASS system meets the requirements listed in the LASS performance specifications and this ARD.

7.8 Operation/Maintenance Instructions:

Sufficient operator and maintenance instructions shall be referenced in the AWR or shall be included in the AWR to operate and maintain the LASS system until such time that the appropriate operator and maintenance manuals are updated with the required information. The information shall include LRU and systems level operations and instructions, maintenance and installation instructions, diagrams, parts list, specific product warnings and the operator/maintenance warnings, cautions, and notes that are required for safe utilization of the components and system.

7.9 Hazards of Electromagnetic Radiation to Ordinance (HERO).

The HERO requirements of section 3.6.1 of ADS-37A shall be verified by test.

8.0 PRODUCTION AWR REQUIREMENTS:

For production substantiation to achieve a PAR, in addition to the technical data outlined in previous sections, each LRU shall comply with the following additional testing:

8.1 Lightning:

The externally mounted LASS components shall not create a hazard if the aircraft is struck by lightning. This may be conducted by analysis. This does not mean that the LASS is not damaged after a lightning strike, but the current conducted onto the cabling and the energy applied to the structural mounting shall not damage the aircraft or other subsystems so severely that the aircraft cannot land safely.

8.2 Electro-Static Discharge (ESD):

The LASS system shall meet the requirements of ADS-37A-PRF for exposure to personnel level electro-static discharges. Helicopter borne ESD shall not couple energy onto the LASS cabling which would degrade other aircraft sub-systems or interfere with aircraft antennas.

8.3 Electromagnetic Compatibility (EMC):

Requirements of paragraph 7.6 apply if not fully satisfied.

8.4 Electromagnetic Vulnerability (EMV):

The LASS wing assembly shall be included in the EMV test plan and report, and shall meet the requirements of ADS-37A-PRF for exposure to both friendly and hostile electromagnetic emitters.

Lightweight Armament Support Structure (LASS) ARD

NOTE: The LASS wing itself is not inherently vulnerable to EMV but the internal wiring connection between ordnance and aircraft is.

8.5 Environmental Bench Level Testing:

It is the responsibility of the contractor/PM to specifically tailor the test plans and reports for the environmental testing of each subsystem. The sequence should follow MIL-STD-810F and the test plans shall be approved by AED before testing commences. Testing shall meet the worst case environmental conditions, all applicable aircraft PIDS and all military and civilian regulations and requirements.

9.0 PROGRAM REVIEWS:

The following program reviews shall be supported by the contractor to establish a foundation for airworthiness substantiation and assure compliance with substantiation requirements. The time, place, and agenda of each review shall be communicated through TAPO to AED not later than 10 working days before each review.

9.1 Preliminary Design Review (PDR):

The PDR shall consist of a Systems Requirements Review (SRR) conducted to demonstrate that the contractor understands the system requirements and to identify how the contractor intends to fulfill those requirements. The PDR/SRR shall:

9.1.1 Provide preliminary layout and preliminary detailed drawings, which shall identify each item of the system, subsystem and shall include the functional relationship and purpose of the items. Structural attachment details must be provided and all loaded joints clearly shown. Data shall be provided that supports the design criteria, weight/center-of-gravity estimates and test plan status.

9.1.2 Assure the design approach complies with design criteria, airworthiness qualification, and other contract requirements.

9.1.3 Identify changes impacting airworthiness qualification, compliance with required specifications, or increased risk.

9.1.4 Identify changes to the airworthiness testing program resulting from design changes and assess the technical program progress.

9.1.5 Specify all significant safety hazards of medium risks or higher and develop the initial risk assessments, and document all other safety hazards and the appropriate risk assessments.

9.2 Critical Design Review (CDR):

The purpose of the CDR is to finalize the design. The items listed below shall be submitted to AED at least 45 days prior to the (CDR):

9.2.1 Detailed mechanical and electrical drawings, preliminary safety assessment data, structural substantiation and software documentation.

9.2.2 Assure the design approach complies with the airworthiness qualification and other requirements.

Lightweight Armament Support Structure (LASS) ARD

9.2.3 Identify changes impacting airworthiness qualification, compliance with required specifications, or increased risk.

9.3 Test Readiness Review (TRR):

The Test Readiness Review (TRR) Technical Interchange Meeting (TIM) shall be held prior to test flight for the new equipment. The Safety Assessment Report (SAR) shall be completed and provided to AED 30 days prior to the TRR. The purpose of the TRR is to ensure that all requirements have been met for the flight test. The TRR may be conducted via a videoconference or teleconference.

9.4 Production Readiness Review (PRR):

The Production Readiness Review shall assure all requirements specified in the LASS Performance Specification, and this ARD have been successfully completed, and that the LASS system has met all requirements for full production and fielding.

Lightweight Armament Support Structure (LASS) ARD

10.0 Appendix A

Applicable Documents

The following documents, of the issue in effect on the date of the contract, form the basic requirements that this ARD is based on:

ADS-37A-PRF	Aeronautical Design Standard, Electromagnetic Environmental Effects (E ³) Performance and Verification Requirements, 28 May 1996
ADS-44	Aeronautical Design Standard (ADS), Armament Airworthiness Qualification
ADS-45	Aeronautical Design Standard (ADS), Data Requirements for Airworthiness Release, For Helicopter Armament Testing, (Guns, Rockets, Missiles)
ASME-Y14.100-2000	American Society of Mechanical Engineers, Engineering Drawing Practices
DARCOM-CP-2222-S1000J	PIDS for UH-60L Black Hawk Aircraft 89-26179 to 91-26391
FMECA DI-ILSS-81495	System Failure Mode Effects and Criticality Analysis
MIL-STD-461E	Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment, 20 Aug 1999
MIL-STD-810F (3)	Environmental Engineering Considerations and Laboratory Tests, 5 May 2003
MIL-STD-882D	Standard Practice for System Safety, 10 Feb 2000
MIL-STD-1289D	Airborne Stores Ground Fit and Compatibility, Requirements, 24 Sep 2003
MIL-STD-1472	Human Engineering Design Criteria for Military Systems, Equipment and Facilities
MIL-STD-1795	Lightning Protection of Aerospace Vehicles and Hardware

Lightweight Armament Support Structure (LASS) ARD

SAE AS50881

Wiring, Aerospace Vehicles

SOP EF2002- 111

Standard Operating Procedure, Aviation Engineering Directorate,
Structures Division, 26 Nov 02, Subject: Structural Integrity
Substantiation of Airframe Structural Modifications

Lightweight Armament Support Structure (LASS) ARD

11.0 Appendix B

DATA ITEM DESCRIPTION SYSTEM (DIDS)

The DID format is highly recommended but contractor format is also acceptable, providing the data information and formatting are correct. Assumption is that government provided data will be in an Airworthiness Substantiation Document (ASD)

DI-GDRQ-80198A	Internal Loads and Static Strength Analysis
DI-ILSS-81495	Failure Mode, Effect and Criticality Analysis
DI-MGMT-81501	Weight and Balance Report for Aircraft
DI-NDTI-80566	Substantiation Test Plan/Report
DI-NDTI-80809B	System Acceptance Test/Inspection Report
DI-QCIC-80553	System Acceptance Test Procedure Report
DI-SAFT-80102B	Safety Assessment Report (SAR)

Lightweight Armament Support Structure (LASS) ARD

12.0 Appendix C

Acronyms

AAE	Armed Aerial Escort
AATD	Aviation Applied Technology Directorate
ADS	Aeronautical Design Standard
AED	Aviation Engineering Directorate
ARD	Airworthiness Requirements Document
ARSOA	Army Special Operations Aircraft
ARS	Airworthiness Requirements Specification
AWR	Airworthiness Release
CDRL	Contract Data Requirement List
CDR	Critical Design Review
CE	Conducted Emissions
DECU	Digital Electronic Control Unit
E ³	Electromagnetic Environmental Effects
EFS	External Fuel System
EMC	Electromagnetic Compatibility
EME	Electromagnetic Environment
EMI	Electromagnetic Interference
EMV	Electromagnetic Vulnerability
ESD	Electrostatic Discharge
ESSS	External Stores Support System
EUT	Equipment under Test
HMU	Hydro Mechanical Unit
ICD	Interface Control Document
LASS	Lightweight Armament Support Structure
LRU	Line Replaceable Unit
MIL-STD	Military Standard
PAR	Production Airworthiness Release
PDR	Preliminary Design Review
PIDS	Prime Item Development Specification

Lightweight Armament Support Structure (LASS) ARD

PM	Program Manager
PRR	Production Readiness Review
RDECOM	US Army Research, Development, and Engineering Command
SA	Spectrum Analysis
SAR	Safety Assessment Report
SBS	Substantiation by Similarity
SED	Software Engineering Directorate
SOF	Safety of Flight
SRR	System Requirements Review
STD	Standard
TIM	Technical Interchange Meeting
TRR	Test Readiness Review
W&B	Weight and Balance

PAST PERFORMANCE QUESTIONNAIRE

I. CONTRACT IDENTIFICATION

A. CONTRACTOR _____

B. CONTRACT NUMBER _____

C. CONTRACT TYPE _____

COMPETITIVE () YES () NO
FOLLOW-ON () YES () NO

D. PERIOD OF PERFORMANCE _____

	<u>ESTIMATED COST</u>	<u>FEE</u>	<u>TOTAL VALUE</u>
E. INITIAL CONTRACT COST	_____	_____	_____
F. CURRENT CONTRACT COST	_____	_____	_____

G. PRODUCT DESCRIPTION AND/OR SERVICE PROVIDED:

II. AGENCY IDENTIFICATION

A. NAME _____

B. PROCURING CONTRACTING OFFICER

NAME _____

TELEPHONE _____ FAX _____

C. ADMINISTRATIVE CONTRACTING OFFICER

NAME _____

TELEPHONE _____ FAX _____

D. GOVERNMENT PROJECT MANAGER

NAME _____

TELEPHONE _____ FAX _____

E. WAS THIS CONTRACT/ORDER PARTIALLY OR COMPLETELY TERMINATED FOR
DEFAULT OR CONVENIENCE. IF YES, EXPLAIN.

III. OFFEROR STATEMENTS ABOUT PAST PERFORMANCE

A. RELEVANCE TO THIS PROPOSED CONTRACT

B. QUALITY OF PRODUCT OR SERVICE

C. SCHEDULE

D. COST CONTROL

Evaluation Data

1. To what extent did the contractor adhere to contract delivery schedules?

Considerably surpassed minimum requirements _____

Exceeded minimum requirements _____

Met minimum requirements _____

Less than minimum requirements _____

Comment: _____

2. To what extent were the contractor's reports and documentation accurate and complete?

Considerably surpassed minimum requirements _____

Exceeded minimum requirements _____

Met minimum requirements _____

Less than minimum requirements _____

Comment: _____

3. To what extent was the contractor able to solve contract performance problems without extensive guidance from Government counterparts?

Considerably successful _____

Generally successful _____

Little success _____

No success _____

Comment: _____

4. To what extent was the contractor effective in interfacing with the Government's representatives and responding positively and promptly to technical direction?

Extremely effective

Generally effective

Generally ineffective

Extremely ineffective

Comment: _____

5. Did the contractor commit adequate resources in a timely fashion to meet the requirements and to successfully solve problems?

Provided abundant resources

Provided sufficient resources

Provided minimal resources

Provided insufficient resources

Comment: _____

6. To what extent did the contractor display initiative in identifying user needs and recommending technical solutions to problems identified?

Displayed considerable initiative

Displayed some initiative

Displayed little initiative

Displayed no initiative

Comment: _____

7. To what extent was the contractor able to develop a production package from the prototype design efficiently, completely, and without significant complications?

Considerably surpassed expectations _____

Exceeded minimum requirements _____

Met minimum requirements _____

Less than minimum requirements _____

Comment: _____

8. To what extent was the final data package useful for recreating the production item, i.e. were proprietary processes cited that might prevent other contractors from recreating the item in the future?

Considerably surpassed minimum requirements _____

Exceeded minimum requirements _____

Met minimum requirements _____

Less than minimum requirements _____

Comment: _____

9. To what extent did the contractor meet the proposed cost estimates?

Less than estimated cost _____

Comparatively equal to estimate _____

Exceeded the costs _____

Considerably surpassed estimate _____

Comment: _____

10. How effective has the contractor been in selecting, retaining, supporting and replacing (when necessary) key personnel?

Extremely effective _____

Generally effective _____

Generally ineffective _____

Extremely ineffective _____

Comments:
